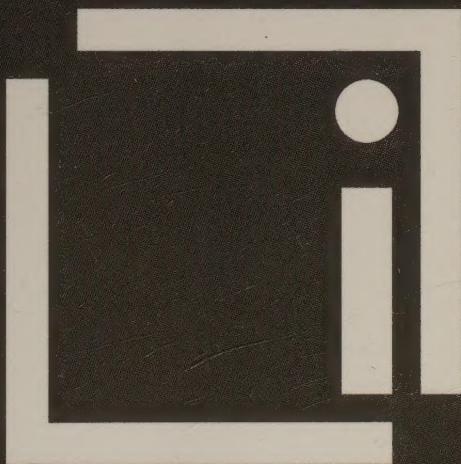


TALES OF S.O.S. AND T.T.T.



®

BENNET COPPLESTONE
F. HARCOURT KITCHIN

Tales of S.O.S. and T.T.T.

BY

BENNET COPPLESTONE

AUTHOR OF 'DEAD MEN'S TALES



BOSTON AND NEW YORK
HOUGHTON MIFFLIN COMPANY

Printed in England

1927

I.

A GREAT NOISE UPON THE
WATERS

A

I.

A GREAT NOISE UPON THE
WATERS.

THE vast Solitude of the ancient Seas has gone for ever. And it was just that Solitude, that stark loneliness, which oppresses most the imagination of those who read or who write of old exploring voyages. Forgotten, it must often have seemed, of man—and even in hours of anguish of God,—the stout-hearted voyagers in their own little world, bounded by their own frail bulwarks, were driven in upon themselves, to sink or swim, to sicken and die, to laugh or go mad. And the wonder is that in those voyages of long years they did not more often go mad. Sometimes they did. We have

4 TALES OF S.O.S. AND T.T.T.

written of those voyages of solitude and silence in our "Dead Men's Tales," and now we will turn to the disappearance of solitude, the dispersal of loneliness, and the coming of that Great Noise which now resounds upon the waters. It began as a soft faint whisper nearly thirty years ago. And from that thin trickle of audible signals, first heard by Senator Marconi, has come the mighty torrent which we know to-day, a torrent which flows invisibly (yet clearly to be heard) over sea and land until the world itself has become too small to bound its possibilities.

The rapid development of wireless telegraphy has been due to its inherent simplicity. We must not confuse it with that much later and much more complicated employment of wireless oscillations in broadcast telephony. Telephony demands the accurate reproduction in

terms of electrical oscillations of the wide range of vibrations involved in human speech and instrumental music. This is not possible without the infinitely delicate and infinitely responsive thermionic valve. But wireless telegraphy asks no more than some system which will allow the dots and dashes of the Morse code to be transmitted and picked up, an extremely modest demand in comparison with the extortionate requirements of telephony. It was discovered quite a long time ago that a high tension discharge, with a system of make and break by which it could be controlled, set up oscillations in ether, and could be employed with a suitable detector at the receiving end to transmit the dots and dashes of Morse. This was the "spark" transmitter.

Ship wireless began with the simple and efficient spark transmitter, and in this year of high developments, 1927,

6 TALES OF S.O.S. AND T.T.T.

is still based upon the spark transmitter. Fully three-fourths in number of those vessels in the British mercantile marine which are equipped with wireless telegraphic plant under the compulsory regulations of the Board of Trade depend solely on spark transmitters, and every vessel—whatever its size may be, and however elaborate the equipment of its wireless house—is, under our British laws, required to carry an emergency spark transmitter worked by a simple battery and high-tension coil. The first line of defence has become the last and the most dependable. For the spark represents wireless telegraphy reduced to its ultimate elements, and can be operated when ships' engines and dynamos have been put out of action by a marine disaster, and all the pretty gadgets of latter-day telegraphy and telephony have become functionless. This good old spark transmitter,

which was once the be-all and end-all of ship wireless telegraphy, is still its ultimate stand-by in extreme emergency.

What the captain of a vessel in distress, assisted by his wireless operators, wants to make sure of is that every vessel within fifty miles shall get his distress call, and get it loudly and insistently. Whatever his own plant may be, he is thrown back upon simplicity, for most of the ships which may be within effective distance will be equipped with spark transmission and crystal detectors. Hence his S.O.S. appeals are firmly hammered out on the spark on the standard 600-metre wave, a signal which every ship within fifty miles cannot fail to pick up if the wireless operators are on duty at their head 'phones. It is with ship wireless as with everything else at sea. In face of the elemental perils, all the complications and elaborations which have been accumulated

8 TALES OF S.O.S. AND T.T.T.

about sea travel are instantly shed, and we throw back as near as may be to the simple expedients of our maritime ancestors. It very often happens that wireless telegraphy, reduced to a sudden urgent cry, becomes of no immediate avail because the stricken ship spills its passengers and crew into boats, or into the sea itself, before help can be rendered. But, as will be seen in these tales, wireless, by destroying the solitude of the seas, has very greatly reduced the perils of death from abandonment. Though the frail and unstable steel monster of to-day may descend to the depths long before help can come to it in answer to its wireless calls, yet those who are cast on the mercy of the waters presently find succour in the rescuing vessels which their wireless calls have summoned.

One of the deepest tragedies of war is that so much of the effort and learning

stimulated by war is scrapped when peace returns to the world. But it was not so with wireless telegraphy. The developments and experience of war-time could be turned immediately to the furtherance of safety in peace, to the pushing back, as it were, of that danger line which is never far from any ship at sea in any waters. In 1919 the compulsory wireless of D.O.R.A. was made permanent by British legislation, and ever since the Board of Trade has tactfully yet relentlessly been stiffening its regulations and pushing up the standard of wireless equipment in our ships.

Behind the Board of Trade is the travelling public, which in these days means almost every one at some time or other, clamouring for all the protection which wireless telegraphy can give. And it has followed inevitably that the equipment of the biggest and best ships, especi-

10 TALES OF S.O.S. AND T.T.T.

ally of the North Atlantic steamers, far exceeds the minimum requirements of English law. In these and a good many other vessels powerful valve transmitters, using the continuous wave, have superseded the more generally employed spark transmitters, and valve receivers have displaced the humble though efficient crystal. The range of apparatus has been voluntarily extended until, with some passenger vessels, no spot in the Seven Seas is beyond calling distance of a shore station. But whatever additions may be made to the legally enforced plant, all British sea-going vessels of 1600 tons and upwards must carry the prescribed emergency apparatus, which can be operated when dynamos are silent and all the ship's power cut off—a plant self-contained and self-sufficing under the hands of the operators in the wireless house.

British ships, alone among the vessels of all nations, have fully adopted in practice the proposals of the International Convention of 1913 to listen at regular times for S.O.S. (distress) and T.T.T. (alarm or warning) signals. In our ships all ordinary wireless work must be suspended for three minutes—known as the Silence Period—at 15 minutes and at 45 minutes past each hour by Greenwich mean time. During these periods the British wireless operators all the world over listen simultaneously for calls of distress and warning, and they may be pardoned for grumbling that foreign ships and foreign stations do not follow the same humane course. The writer has himself listened through many Silence Periods. He has never yet heard an S.O.S., but he has heard with some exasperation a multitude of other signals flung forth by foreign operators. Indeed,

12 TALES OF S.O.S. AND T.T.T.

there seems some ground for the conviction of British operators that the Silence Periods are deliberately used by these foreign intruders because the ether is then comparatively clear for their messages. One cannot claim that much harm is done. The S.O.S. signal—three dots, three dashes, and three dots—repeated urgently and loudly is so significant a call that it rings out like an insistent alarm bell, and is heard at once and responded to, though there may be a welter of other signals clustering about the ears of an operator.

And now let us pass for a moment from the technical to the human side, the very human side, of this wireless development. All of it turns on the skilled ears and fingers, on the patient stout heart, of that obscure humble person—the wireless operator. He is a landsman who has come too recently

upon the decks of a ship to be wholly accepted as a seaman. His status is vague and undetermined. In nine-tenths at least of British ships he is not employed by the owners. He is a stranger, engaged and paid by the Marconi or other wireless company, who signs on for the voyage ; he comes directly under the orders of the skipper, and is only an officer of the ship by courtesy. If he be an intelligent man—and all the wireless operators whom we are happy to number among our friends are highly intelligent,—he teaches himself a great deal about ships and their handling. But primarily he is a telegraphist, whose essential training does not greatly differ from that of the telegraphists on land employed by the Post Office and the great daily newspapers. He must, of course, have more than a working knowledge of his wireless apparatus, for it is his job to keep it up to concert pitch.

14 TALES OF S.O.S. AND T.T.T.

all the time, but in no sense is he a wireless engineer. The faculty which makes him expert almost beyond belief—to those outsiders who have watched him daily at work—is his power to speak and read in Morse signals as readily and surely as the rest of us speak and read our native language. Morse signals are a code of dots and dashes. A great many people think that they have learned that code—soldiers and sailors, Boy Scouts and Girl Guides. The amateur at Morse spells it out laboriously, and listens to it apprehensively. Unless the pace be very slow, the signals run away from him. But the skilled telegraphist on land or on sea keys out his Morse as if he were speaking, and he reads it just as if one were talking to him in plain English. He will, if he be a wireless operator, sit at his desk with 'phones at his ears. All around him yaps a chatter of signals, all of varying

strengths, all sent forth on the same 600-metre standard ship wave. Unless any part of this overlapping clattering jumble of dots and dashes has significance for him, he passes it by as if it were the chirping of birds. But let the call sign of his own ship be sent forth, or a general-service instruction or news message, or more especially the S.O.S. or T.T.T., and he responds as any of you would respond were your name loudly shouted in Piccadilly. He will infallibly pick out the signals he wants from the signals that he does not want, and he will reply to them as serenely and rapidly as he listens to them. The more one sits, 'phones on ears, beside a wireless operator, trying to follow him in what he hears and in what he sends, the more one will come to admire and wonder at this selective faculty of his. It is, of course, simply the result of hard training and

16 TALES OF S.O.S. AND T.T.T.

constant practice. To him it is no more wonderful than that an Englishman should be able to speak French or German. Morse is just his special foreign language. To him it speaks so distinctively that he will infallibly recognise the hand of a friend upon the sending key.

No human quality receives more admiration than calm courage in face of deadly peril; yet both peace and war teach us that no human quality is more widely spread among trained men of many races. We no more expect the plain common man to shirk his job when in risk of death than we expect his leaders or officers to shirk theirs. We have, all of us, much more fear lest we should in sudden danger hoist the white feather ourselves. The wireless operator, a plain man equipped to do one thing supremely well, bears himself in extreme emergency with the cool courage of the engine-

driver, or the miner, or the fireman. He stands by his job, though at any moment the ship may sink under his feet. From the very nature of his job he is almost the last man to leave a sinking vessel—allowing precedence in devotion to the captain alone,—and he continues to send distress calls and to direct rescuing vessels until some officer's hand seizes the slack of his trousers and pitches him into a boat. Sometimes, and not infrequently, he goes down with his ship.

There is that about the sea, the mother of gods and men, which strips all human folk of their pettinesses, and reveals them to themselves in their true qualities of bone and fibre. It is not only that the professionals are trained men, from the deck-hand to the skipper, who are always on active service ; it is the rarest thing in a sinking British ship for passengers

18 TALES OF S.O.S. AND T.T.T.

to lose self-control and break for the boats. Women will send away their children and stand by their husbands to sink or swim, and often to sink. A panic implies inevitably a failure in cool leadership. We do not, in writing these tales, in which the work of wireless operators must play no small part, claim for them any more than that devotion to duty which "England expects" in Nelson's signal, and England so rarely fails to find. These Tales of Live Men, as were our Dead Men's Tales, are epics in the quiet always dependable heroism of the common man.

II.

A MATTER OF MINUTES

II.

A MATTER OF MINUTES.

ON Sunday night, 14th April 1912, fifteen hundred lives were lost by a margin of ten minutes. At half-past eleven Cyril Evans, the sole wireless operator of the *Californian*, took off his head 'phones and turned into his bunk after having been at work, off and on, since seven o'clock in the morning. Ten minutes later the *Titanic* was ripped up by ice actually within sight of the *Californian*, though not identified by the deck officers on watch. There followed two hours and forty minutes of agony in the *Titanic*, and of puzzled anxiety in the *Californian*. Meanwhile the one man who could instantly have identified the *Titanic* by

22 TALES OF S.O.S. AND T.T.T.

wireless signals, and within less than an hour have caused the *Californian* to range alongside and save all those fifteen hundred lives, continued to slumber in his bunk. Even the fates, the merciless ones, pretended to relent for an instant, and young Evans was awakened, and those lives, which might still have been saved, hung in the balance. Yet nothing happened. It is a story that for sheer tragic cruelty no writer of stories would have dared to invent. None could have designed it and carried it relentlessly to its appointed end save the devils that rule the sea.

Though fifteen years have passed since that fatal Sunday night, and we in our pride of multiple valve receivers and transatlantic telephony may charge the ship apparatus of that day with inefficiency, we should be quite wrong. The spark transmitters and crystal de-

tectors of 1912 were fully adequate to their purpose—the best of them had an effective range of 1500 miles,—and most British vessels, except the great liners, are equipped now much as they were then. The terrible loss of life in the *Titanic* disaster sprang directly from insufficiency of wireless staff, not from insufficiency of means of communication. The *Titanic*, the last word in ship luxury, carried two operators, who worked in watches all round the clock; the *Californian*, a 6000 ton ship, had but one, and he was in bed. No blame was attached nor could be attached to him; it was the system, which left the ship deaf and dumb when the sole operator was in bed, which must be put in the dock and convicted.

Late that afternoon at half-past six the officers of the *Californian* found that their ship was approaching icebergs, and

24 TALES OF S.O.S. AND T.T.T.

sent out a warning which was heard by the operators of the *Titanic*. The captain of the *Californian* (which, though she had a passenger certificate, carried no passengers on that voyage) proceeded slowly amid the ice, unlike the *Titanic*, which, though warned, continued to travel at her full speed of over twenty-one knots. This practice among the great North Atlantic liners of subordinating safety to a passion for keeping schedule time was condemned by the Court of Inquiry over which Lord Mersey presided. At half-past ten the *Californian* stopped altogether, because field ice seemed to extend in front of her across the western horizon, and half an hour later, about eleven, the lights of an approaching vessel were seen on the starboard quarter. Neither the captain of the *Californian* nor his officers connected this steamer in their minds with the *Titanic*. In their

view the lights indicated a vessel of about their own size, and were not such as would have been emitted by a blazing sea monster. It was just about at that moment, eleven o'clock, that Evans, the wireless man in the *Californian*, came actually into touch with his opposite number in the *Titanic*, and knew, from the strength of her answering signals, that she was close at hand. No conversation took place between the ships—another ill stroke of fate,—nothing but a short request from Phillips of the *Titanic* to Evans to keep out and not jam the communications he was himself exchanging with Cape Race. It will be understood that the *Californian's* near-by signals on the standard ship wave-length were so much stronger than those from the distant Cape Race that Phillips could not discharge his duties of sending passengers' telegrams, while Evans was shout-

ing at him about ice of which he had already been warned. So passed the first of those intensely critical minutes upon the effective use of which hung those fifteen hundred lives. Two minutes of wireless talk between Evans and Phillips would have revealed the vital fact that the *Californian* and the *Titanic* at that moment, and all through the subsequent hours of drawn-out agony, were in sight of one another. The *Californian* was very well supplied with boats, and the sea was calm as a pond. "Keep out," snapped Phillips on his Morse key. "All right, have it your own way," growled Evans, and the opportunity passed for ever.

Let us trespass for a while upon the bridge of the *Californian*, and try to see with the eyes and think with the puzzled minds of her officers. At eleven o'clock, when the unknown steamer—which to them looked so small and yet was so

vastly big—appeared on the starboard quarter, Third Officer Groves was on watch. The engines had been stopped since half-past ten. In the judgment of Groves the stranger vessel, when first seen, was some ten or eleven miles distant, and was a passenger steamer, though the angle at which she was approaching foreshortened her length and made her appear comparatively small. He reported to the captain, who instructed him to call her up on the Morse lamp. This young Groves tried to do, but could get no visible reply. At 11.40 (the moment of impact between the *Titanic* and an iceberg) the strange vessel appeared to stop and her deck lights to go out. Groves naturally drew the conclusion that she had been stopped by ice, as had his own vessel, and that the deck lights had been extinguished because it was time for her passengers to go to bed. There was,

at the moment, nothing to arouse stronger feelings than curiosity. The captain, who then came on the bridge, knew from his wireless operator that the *Titanic* was close by, but could not discern any resemblance between the steamer in sight and the *Titanic*. "She does not look like a passenger steamer," observed he. Evans, the wireless operator—known by the generic title of "Sparks,"—had gone to bed at half-past eleven, and no one felt that any pressing occasion had arisen for seeking his help in identification.

At about a quarter-past twelve Third Officer Groves was relieved by Second Officer Stone. Groves pointed out the now stationary steamer, which was judged by the Court of Inquiry to have been between eight and ten miles distant, and declared the conviction, from which he never swerved, that she was in fact a passenger steamer. But not even Groves,

who had seen her from the first while she was still lighted up, thought that she was the *Titanic*. He still attributed her sudden stoppage to the ice, and the disappearance of the deck lights to the regular routine of a passenger steamer. Nevertheless, there was in the mind of Groves some subconscious promptings of anxiety. Readily as the incidents attending the appearance of the stranger vessel could be explained away, they left a taste of queerness in his sea mouth. And so, before seeking his own cabin, he tried in irresolute perfunctory fashion to resolve for himself the problem of identity. But the impulse which sent him to awaken Sparks and to ask what ships he had got before turning in did not impel him far enough to save fifteen hundred lives. The minutes which then followed were of inestimable value, yet, like those other invaluable minutes when

30 TALES OF S.O.S. AND T.T.T.

the *Californian* and the *Titanic* were in wireless contact, they dribbled away unused. "What ships have you got?" asked Groves of the half-awakened Sparks. "Only the *Titanic*," growled Sparks. It was just at that moment, a quarter-past twelve, that the captain of the stricken *Titanic*, convinced by his carpenter and engineers that the huge "unsinkable" vessel must rapidly and certainly sink, had instructed his chief wireless operator, Phillips, to send out the first of those continuous alarm signals which Phillips flung upon the ether until he himself went down with his ship. Had Sparks, fully awakened into a sense of urgency by Groves, put on his head 'phones and wound up his magnetic wire detector (operated by clockwork) he must have heard and acknowledged the first, or almost the first, of those insistent C.Q.D.'s (the predecessors of S.O.S.'s). The *Cal-*

fornian with her six boats could, long before the *Titanic* sank, have saved all whom her own boats could not save. But again the vital minutes passed. Groves actually put Sparks's head 'phones to his own ears, heard nothing, put them down again, and went away to his bed. And Sparks, who could have heard—by winding up the detector—and replied, and saved all those lives, turned over and went to sleep again. He was not to blame, Groves was not to blame; it is easy to be wise after the event. Yet if ever the fates played sardonic tricks with poor suffering humanity it was during those minutes in Sparks's cabin when Groves woke him up, but did not awaken him enough.

Now we may return to the bridge of the *Californian*, which, all through the middle watch, until four o'clock in the

morning, was in charge of Second Officer Stone. On the bridge with him for most of the watch was an apprentice, one Gibson. There was little to occupy the minds of either of these young sailors except that strange vessel yonder, of which they could see one masthead light, a red side-light, and two or three small indistinct lights on deck. Their own ship was motionless, except for a slow swinging on the very calm sea. It was a minor tragedy of the *Titanic* disaster that she was lost in weather ideal for the purpose of rescue. Stone and Gibson watched this vessel for the whole of the time she remained in sight. At ten minutes past one they saw a white flash, followed by four others, which "had the appearance of rockets bursting in the sky." The flashes followed one another at intervals of about three minutes. Stone knew that these rockets must be signals of some

sort, though not necessarily of distress. He thought that the stranger might be calling the attention of the *Californian*, as in fact she was ; all through the two hours and forty minutes in the shadow of death those in the *Titanic* could see not very far off the placid lights of the *Californian*. Stone reported the rockets to his captain, who asked if they were "Company's signals." Stone did not know ; he had tried to get into communication by Morse lamp, but with no more success than Groves in the previous watch. Gibson, the apprentice, then tried his hand with the lamp, and also failed to perceive any response. No one, on the bridge or in the captain's cabin, thought of calling up Sparks, the wireless operator, slumbering peacefully a few yards off. They knew of one vessel only which certainly was near to them, the *Titanic*, and their minds were closed to

the possibility of that vessel yonder being the *Titanic*. She was, they were assured, a steamer of about their own size of six thousand tons. Besides, she was sending up rockets and might be in distress, and so certainly could not be the *Titanic*. For at that time, in April 1912, even the minds of sailors, keenly sensitive to the frailty of great ships, were obsessed by the widely advertised notion that the *Titanic* was unsinkable.

A little later three more rockets were seen, the last at 1.40 A.M. Twenty minutes afterwards, at two o'clock, Stone sent the apprentice Gibson to report again to the captain. The Second Officer on watch, who all along had been more than a little worried, was becoming gravely uneasy. The lights of that distant steamer were looking "queer" and "unnatural." Some were being shut in and others being opened out. The red side-light was ob-

served by Gibson to be rising up, and he also thought that there was "something funny" about it. The conclusion reached by these bewildered observers was, however, that the vessel was steaming away from the *Californian*, and gradually disappearing to the south-west. They repeatedly called her on the Morse lamp without visible response. Gibson told the captain at two o'clock of the eight white rockets, and was asked if he were sure that none of them were red or green. Gibson then returned to the bridge, and the two officers watched the gradual disappearance of all the lights, which, as Stone said in his evidence, "would be perfectly natural with a ship steaming away from us." At twenty minutes past two all the lights had vanished. It was at this moment, twenty minutes past two, that the *Titanic* sank. These two men had seen her dying calls written

in rocket bursts upon the black clear sky, had watched her list and sink, and all the while were unconscious of the tremendous tragedy being played out to its end before their eyes.

Meanwhile there were those in the doomed *Titanic* who were doing their utmost in the untoward circumstances to summon the *Californian* to their aid. The many ships which responded to Phillips's calls were too far distant to arrive before the end had come, though near enough to rescue 712 of the company from death by drowning and exposure. The *Californian* alone was close at hand. The spur of solid ice which at forty minutes past eleven (ship time) had sliced open six compartments of the *Titanic* (a wound 300 feet long) as a knife slices cheese, had struck a blow so softly felt that even Lightoller, the Second Officer, who survived, thought little of it. There

was a slight jar followed by a grinding sound, that was all. Lightoller, who was in his cabin off duty, went on deck, and at first perceived nothing to disturb his rest. He judged the conditions to be normal, went back, and turned in again. Half an hour later Fourth Officer J. G. Boxall came to Lightoller's cabin. "He just came in," said Lightoller afterwards, "and quietly remarked, 'You know we have just struck an iceberg.' I said, 'I know we have struck something.' He then said, 'The water is up to F. deck in the mail room.' He had no need to say anything further." Lightoller and Boxall were both saved, though their seniors, the Captain, Chief Officer, and First Officer, were all drowned.

It was Lightoller who, while busy getting out the boats, seems to have first perceived the lights of the *Californian* at a distance, as he judged, of not over

five miles. Boxall—who, though ranking in the *Titanic* as Fourth Officer, held the highest maritime certificate of extra Master—also clearly saw two masthead lights about half a point on the port bow. He reported to the captain, and said that he would send up rockets. He was told to carry on. These rockets were designed as distress signals; they exploded high in the air with white stars, and Boxall sent them up at intervals of a few minutes. All the while he watched the distant steamer, and made out her red and green side-lights as well as the two masthead lights. He thought that she was approaching the *Titanic*, though he could not perceive any reply to his distress signals. There were, however, others with him who thought that they could see the flashes of a Morse lamp. So Boxall went to one of the Morse lamps of the *Titanic*, and himself tried to get into

communication by flash. He, like the Second Officer, judged the distance of the *Californian* to be some five or six miles. Both Boxall and his captain anxiously watched for a reply through their glasses, but could not see any sign of an answer. And yet we know that the *Californian* was at the same time also using the Morse lamp, and also failing to detect any visible response.

There was some evidence, though not enough to carry conviction, that the night was not so clear as it looked. It seemed clear and still and cold, with scarce a ripple on the surface of the sea (what Stevenson so often called "a wonderful night of stars"), with none of that deep swell which is hardly ever absent from the uneasy bosom of the North Atlantic. It was the lack of motion in the sea, and of warning surf breaking against the dark walls of icebergs, which made them in-

visible at a short distance, and was the prime cause of the *Titanic's* loss. There may have been a slight surface haze, common under the weather conditions of that calm spring night, which obscured the intermittent dots and dashes of the Morse lamps. And yet no theory of haze really solves the deepest mystery in this affair of mysteries. For the officers both of the *Californian* and of the *Titanic* could see one another's stationary lights, the white lights on the masts and the red and green at the sides, and yet could not perceive those flashes of Morse for which they were eagerly and anxiously seeking. There is no explanation, and can now never be an explanation. To those brought up among the superstitions of the sea, it would almost seem that the devils of the sea, having fastened their grip upon the "unsinkable" *Titanic*, obscured the eyes and minds of those

who would tear her out of their grip. Whenever one thinks of those two hours and forty minutes of the *Titanic*'s death struggle, and of the *Californian* lying placidly by no more than ten miles away, one sees the sleeping figure of young Sparks in his cabin, unconscious that through his silent aerial were streaming the distress calls of Phillips in the *Titanic*. "Keep out," Phillips had rapped an hour or two before, and Sparks—through no fault of his own—did keep out until long after Phillips was dead.

It was Phillips who in the splendid closing hours of his young life laid the basis of that tradition which has raised an obscure and humble branch of commerce to the dignity of a sea service. There can be no service without sacrifice, no service which has not its roll of martyrs. Phillips did not ask how soon he might with decency leave his wireless key and

betake himself to the boats, but how long he could carry on with his job. How long he carried on is written upon that memorial erected to his honour in his native town of Godalming. And inspired by the glowing example set by Phillips, no British wireless operator, whenever the lives of a ship's company hang upon his deft fingers and keen trained ears, ever asks how soon he may get away into safety. He carries on in his wireless house until he is thrown out or washed out. Sometimes when fire rages under his feet he is blown out. He never runs out.

The story was told by Harold Bride, the second wireless operator of the *Titanic*, who stood by his Number One up to the end, and was picked up after floating about in the cold sea for an hour and a half. Bride happened to be saved while Phillips was not ; the services of these

youngsters in their early twenties were indivisible. The one who lived made his willing sacrifice no less completely than the one who died.

Bride went off duty at eight o'clock on that fatal Sunday evening, and returned to the wireless house at midnight in order, as he thought, to relieve his colleague. That stroke of ice which had cut a gash three hundred feet long in the *Titanic's* bottom had not awokened Bride, and Phillips, who had felt as he worked a slight shock of impact, knew little of its effects. It was some ten minutes later that the Captain came to them, gave them the latitude and longitude of the ship, and asked them to send out immediate C.Q.D.'s. Phillips at once sat down to his key, which he scarcely left for a moment during the next two hours. Replies came thick and fast, but it soon became apparent that the nearest of the

rescuing vessels, the *Carpathia*, some 58 miles distant, could not arrive in much less than four hours. She worked up to her highest speed for a while of $17\frac{1}{2}$ knots, but had to come down after entering the region of ice. With the *Carpathia*, and other vessels also, Phillips and Bride remained in continuous contact, telling in staccato Morse of the launching of boats, of the putting off of women and children, of the inpouring flood of ruthless water. Nothing was left undone to speed the eager anxious rescuers, though it soon became plain to them as to the *Titanic* that the end would have come long before their arrival.

It was at a moment undetermined exactly by Bride (though apparently about a quarter to two) that the Captain came again to the wireless room and ordered the operators there to clear out. The ship was sinking, and they could do no

more. But as soon as the Captain had gone away Phillips put back his ear 'phones, and started in to work again. Bride remained beside him reading what he sent from the dots and dashes of the Morse key. Phillips was speaking to his opposite number, Cottam of the *Carpathia*, in the language of one friend to another: "Come as quickly as possible, old man; the engine-room is filling up to the boilers." That was the last clear message received from the *Titanic*, though Phillips still stuck to his job. The electric power which fed his spark transmitter was failing, and his signals were becoming blurred and unreadable. At 2.17 A.M., three minutes before the *Titanic* plunged vertically into the depths, Phillips made his last call: "C.Q. . . .," and abrupt silence. The dynamos were under water, and all power gone. Then, and not until then, these devoted boys held that

their duty had been discharged, and looked to their own safety. We get a glimpse just before they left of the strange confusion of a sinking ship amidst which these young men kept their heads so admirably. They had definite work to do, which made all the difference. As Phillips with Bride beside him sat at his Morse key, there burst into the Marconi house a grimy-faced creature in the overalls of a stoker, who fell upon Phillips and tried to rob him of his lifebelt. Bride fended the man off, while Phillips, rising up, knocked him out of the house with a blow of his fist. This intruder from the stokehold, and a tearful woman passenger who sat in the wireless house all the while, appear as shadowy distracted figures on a screen, and throw into relief those two busy operators whom nothing could distract from their duty.

The bows of the *Titanic* were thrust

deep into the sea, and the boat deck was awash. The operators climbed up on the deck-houses, the officers' quarters, from which elevation Bride was swept off by the sea as the vessel sank. Phillips was still standing on a deck-house when last seen. With Bride went a collapsible boat, and he came up under it. He disentangled himself as quickly as he could and swam away, supported by his lifebelt. Some three-quarters of an hour later he climbed upon that collapsible boat, whence he was taken off by the *Carpathia*, which arrived on the scene of the disaster shortly after four o'clock.

That *Titanic* disaster, of which we have recalled a few incidents, was the most fruitful event in the history of modern shipping. From it sprang not only a great extension of wireless telegraphy among ships, but also the enforced provision of boats sufficient to carry all on

board, the North Atlantic Ice Patrol carried out by the United States, and paid for by the countries associated in it, and the Convention for securing the Safety of Life at Sea. Those 1500 English and American men and women who sank to their icy deaths in the North Atlantic in the early hours of 15th April 1912 may rest content. They were happy warriors who gained a rare victory in peace till then unapproached, and since then unapproachable.

III.

FIRE, WATER, AND OIL

III.

FIRE, WATER, AND OIL.

IN the autumn of 1913, that year of peaceful prosperity upon which we look back with envious eyes across the black gulf of war, there occurred a maritime disaster which set at naught all the barriers which man had painfully built up between his kind and the known perils of the sea. As always at sea, it was the unknown and the unexpected that fought with him and baffled him, that scorched him and blew him up and drowned him, and yet at the end permitted him to win through. As so often happens when the material works of his hands, in which he takes so inordinate a pride, had failed him in his

need, he was saved by that indomitable spirit of which he is usually unconscious, and in which he takes no pride at all.

It was as if, in the autumn of 1913, the sea, sardonically humorous, sought to demonstrate the futility of those official precautions for the greater safety of life at sea which had been imposed as lessons taught by the loss of the *Titanic* in the spring of 1912. The small emigrant steamer *Volturno*, of 3600 tons, Canadian owned, and sailing out of Rotterdam, was equipped for the safety of her company and passengers as the great *Titanic*, sailing on her maiden voyage some eighteen months earlier, had not been equipped. She had boats for all and more than all. She had two wireless operators keeping a constant watch by day and night. She had fire-extinguishing plant, both chemical and steam. And yet when the emergency put the fiery test upon all her

pretty gadgets, all alike failed. Fire followed upon fire, explosion followed upon explosion ; all those who put forth, or tried to put forth in her boats—except five—were drowned ; the fleet of steamers, great and small, summoned by her wireless lay around her helpless ; and it was not until twenty-four hours had passed that the sea permitted her blinded and scorched survivors to be taken off her red-hot decks. The sea had the first word and the last word ; and but that the sea relented, not all the oil which was pumped upon the waters would have availed to save a man or woman. Most of the officers, crew, and passengers—poor Jews, many of them—were saved because they deserved to be saved ; because amid every circumstance to excuse despair they did not despair.

Soon after leaving Rotterdam the *Voluturno* met with a succession of gales and

heavy seas, and by the early morning of the 9th October the weather had become so bad that few on board attempted to sleep. This made the sudden fierce outbreak of fire the more remarkable, for until a quarter to seven there was no serious alarm, though some of the emigrants thought afterwards that they had smelled smoke. When it came there was a rush of smoke and flame in the forecastle so rapid and unexpected that three men and a boy were at once burned to death. At 6.50, five minutes only after the alarm, the hatch of No. 1 hold (forward) blew off, and the flames pouring forth reached as high as the foremast. The Captain had already ordered the ship to be turned before the wind so as to keep the flames and smoke from spreading aft, but before this order could be carried out another explosion blew the compass out of the

binnacle, jammed the engine-room telegraph and the steam steering-gear, and wrecked the saloon and the ship's hospital. The flames were now licking the bridge. The emergency hand steering-gear was set going, and the vessel's head forced round, but it was already clear that she was doomed and might go very quickly.

Water and steam were turned upon the fire with small effect, and the boats were ordered out. This was a natural step to take, since the peril from drowning in the heavy sea seemed less than the immediate danger of being burned alive on board, but it proved to be disastrous. All those who attempted to get away in boats at this time were lost, either because the boats were immediately stove in against the side of the ship or because they got away only to disappear for ever. Very soon the Captain decided

that those on board should wait in the ship for help to arrive, since the risks of the fire were actually less than the risks of the sea. This is the striking contrast between the case of the *Volturno* and that of the *Titanic* in the previous year. The *Titanic*, in a flat calm sea, had not nearly boats sufficient to save the crew and passengers ; the *Volturno*, which had ample boat accommodation, could not make effective use of it. Boats are at the best a precarious passage to safety ; in weather such as that with which the *Volturno* was battling, they were a quick way to certain death.

Calls for help were promptly sent out, at first a general signal of S.O.S. and a few minutes later more precise messages, with the position of the vessel and particulars of her emergency. By a few minutes past seven the second wireless officer—C. J. Pennington, who was then

on duty—was in touch with the German steamer *Seydlitz* some ninety miles away, and shortly afterwards the chief operator, Walter Seddon, who had been aroused from his bed, heard the reply of the Cunard liner *Carmania*. Other acknowledgments and assurances of help poured in, and it became still more plain that the best and only course open was to wait for it.

Meanwhile, misfortune piled upon misfortune. Just before half-past eight another fire, which proved to be as unquenchable as the first in the cargo holds, broke out in the coal-bunker, and by cutting off the supply of fuel ultimately made of the *Volturro* a helpless fiery log upon the water. Burned out forward, and with her coal supplies pouring forth flame and gas, the vessel realised as nearly as has been seen on land or sea the popular notions of Hell.

In the fight against the two fires Captain Inch of the *Volturno*, his engineers, and crew—many of them Dutch—rose to the height of the emergency. Captain Inch, though blinded by flame—for three days after rescue he could not use his eyes,—never ceased to direct operations, and for so long as steam power was available the vessel was kept before the wind and the fire prevented from spreading aft. Hoses poured down water until they burned out, and then—other hoses were shipped. The emigrant passengers, more than five hundred of them, behaved very well. They did what they could, kept quietly out of the way when they could do nothing, and the Jews among them held religious services. And all the while that those on the *Volturno* were fighting a lone and, judged by its results, a successful fight to save lives—not the vessel, she was doomed from the first,—they

drifted in a ring of spectators, of steamers which had rushed up eager to help but which found themselves compelled to lie off as mere onlookers. There, rolling and pitching in the heavy seas, drifted the *Volturno*, a torch peopled by blinded gasping heroes ; there, looking on, the crews and passengers of vast comfortable liners, seeking ways of help, yet all incapable of making their efforts good.

The Cunarder *Carmania*, about noon, was the first to arrive, and there followed the German *Seydlitz* and *Grosser Kurfürst*. Later on came the *Kroonland*, the *Minneapolis*, *La Touraine*, the *Devonian*, and others—twelve in all ; finally, the morning after appeared the tanker *Narragansett* with her oil. It was a gathering of the nations, British and German and French and American, all summoned by those tiny spark signals thrown upon the ether, all anxious to lend a hand, and yet none

able until the sea, at its pleasure, chose to give permission.

The story of the *Volturno* divides itself naturally into four parts. First we have five hours of lonely horror, in the shadow and expectation of death for all on board, between the outbreak of fire and the arrival, in the teeth of the gale, of the great liner *Carmania*. Then we have gallant yet unavailing efforts to send boats from the rescuing vessels to the *Volturno*, and one magnificent and happily successful attempt to cross the almost impassable barrier of stormy water in a small boat from the *Volturno* herself. Then night fell, hours of darkness stabbed by white searchlights and by the red glow from the burning wreck. Finally comes the dawn, the abatement of wind and sea, the pumping on the waves of the *Narragansett's* oil, and the rescue of 520 of the *Volturno's* passengers and crew.

out of a total of 654. At the close of the last scene of all we see Captain Inch mounting the side of the *Kroonland* with his dog in his arms. Though blinded and burned, and in the last stage of mental and physical exhaustion, this fine seaman did not forget his dog.

It was during the first period that nearly all the loss of life occurred, and that loss was directly due to the attempts to get away the passengers in boats. We must remember that at the moment when the Captain ordered out the boats, and faced the almost certain risks that they would be smashed against the rolling plunging vessel or swamped in the waves, the *Volturno* was herself expected to open out and sink at any moment. She had been rent by two explosions, and the fire in the holds was already beneath the bridge. No. 2 boat, the first to take a desperate chance, was in charge of the

chief officer, and there were with him thirty passengers and eleven of the crew. This boat reached the water and then, rolling half over, spilled out all those who had trusted their lives to her. She righted, the chief officer and some of his men scrambled back into her and tried to save those who were still in the water. What happened after that nobody knows ; the *Volturno* drove on before the gale and the boat was never seen again. The destruction of No. 7 boat was even more rapid. She was lowered, filled with some forty or fifty passengers, and then smashed like an eggshell against the ship's steel side. All on board perished. No. 12 boat, lowered by some dozen passengers in a panic, and lowered clumsily, tipped every one out before the water was reached. So the tale goes on. Other boats were put outboard only to be smashed to pieces as the *Volturno* rolled ;

not a life was saved by means of them, and more than a hundred lives were lost. Meanwhile on board the fire was being fought, at first successfully. The spread aft was checked and damped by streams of water—the employment of steam was soon abandoned as useless,—and the flames were so far subdued that the forecastle could be entered. It was then that the flank of the attackers was turned by the fatal outbreak in the coal-bunker. In it were 400 tons, the ship's supply of fuel for her boilers and steam power for her engines and pumps. The need to salve some at least of this coal was so urgent that the stokehold staff, aided by eager volunteers from the deck, laboured amid flames and gas fumes for three and a half hours, and abated their efforts only when the gas made human existence within the bunker impossible. Then the water-tight doors were closed

and the bunker isolated. This brings us to about 11 o'clock in the morning, and at the close of those hours of struggle the chief engineer found himself with no more than five or six tons of coal available for his boilers. With this bucketful, as it were, of vital fuel he had to keep steerage-way on the ship, and supply power to the pumps for fighting the fires. We must continue this part of the story for the sake of clearness, though in its duration it overlaps that second part which began at noon with the *Carmania's* arrival. Chief engineer Robert Dewar, a sturdy Scottish economist in coal, worked wonders with his few lumps scattered over the stokehold foot-plates, and kept constantly wet with water. Until two o'clock in the afternoon, by keeping the main engines just ticking over and the pumps fully supplied with steam-power, he was able to maintain his gauges at

nearly 100 pounds pressure. Then he stopped the main engines and concentrated on the dynamos for lighting and wireless and, of course, on the pumps. By five o'clock the last lump of coal had gone into the fireboxes, and nothing remained except ash and clinkers. But Dewar went on nursing his fires and his steam pressure with such jealous skill that it was not till nine o'clock in the evening that he failed to squeeze out a pound or two of steam for the pumps. And it was not until ten o'clock that this "bonnie fechter" finally admitted defeat. The engine-room was then closed and abandoned, and the engine and stokehold staff made their way to the deck. And all the while the coal-bunker hard by was smouldering and gas oozing out, and the engineers fully expected the ship plates to open under their feet and the *Volturno* to go straight to the bottom.

Driven furiously into the teeth of the north-westerly gale the *Carmania*, under double banked fires, had lost not a moment of the five hours which it took her to reach the *Volturno*. The wireless cry which had summoned her over eighty miles of water had been explicit of the urgency: "No. 1 and 2 holds blazing furiously; come at once." Six boats had been swung out ready to take the water, others could be made ready in a few minutes, and by the instructions of Captain Barr guest-warps were run from one end of the ship to the other, so that any boat coming up to the side would find a rope there to meet it. All the boat ladders were hung over the side also, and everything made ready for the rapid transfer of the *Volturno's* people to the *Carmania*. There was no lack of volunteers for boat duty. But whatever man may propose it is always the sea

which disposes. Out of the many boats available one only was launched, in charge of the first officer, and failed utterly to reach the *Volturño*. Captain Barr did what he could. He manœuvred his big and rather cumbrous vessel to within a few hundred yards of the *Volturño*, and tried to make of her a shelter for his boat against wind and sea. But the *Volturño*, driving before the wind at a couple of knots, ran away from the boat, leaving it fully exposed. First Officer Gardner was then obliged to throw out a sea-anchor to keep his boat from being swamped. He had a wretched and ineffective time in a sea too heavy for any boat. At the launching he had eight oars in use and two spares, but very soon under the buffets of the waves all the oars were broken or lost except three, and the boat was half-filled with water. All the while oil was kept dripping,

and had some little effect in saving the boat though it did not help towards the achievement of the main purpose of reaching the *Volturno*. As it was, even with the help of oil, the *Carmania*'s boat was only kept afloat by constant baling. When it became apparent that Gardner could by no possibility reach the *Volturno*, and was in the gravest danger of being swamped himself, there came the critical problem of picking him up. And this was an operation much more dangerous than getting a boat into the sea, itself so extremely hazardous that, as we have seen, many of the *Volturno*'s boats were smashed to pieces in the attempt. It was a very pretty bit of emergency seamanship which saved First Officer Gardner and all his men without even the sacrifice of the boat. Captain Barr manœuvred the huge bulk of the *Carmania* to windward of him, and then allowed the liner

to drift down bodily right upon the boat. It will be understood that the steamer which offered so much greater a surface to the wind drifted much more rapidly than the boat lying at a sea-anchor. As the *Carmania* came down she took the force of wind and sea off the boat, so that those in her were able to grab the guest-lines and hold the boat against the ship's sides. Then all the men, except Gardner and two others, were hauled up by ropes. The first officer and these two with him then, with astonishing skill and composure, hooked the falls on the ends of the boat and were run up to the davits as though they had been arriving from an everyday boat trip. There were still plenty of volunteers anxious to make further attempts, but Captain Barr wisely decided that once was enough. No boat could possibly reach the *Volturno*, and it was useless to add lives of the *Car-*

mania's men to those already lost from the *Volturbo*. All this while messages were passing between the wireless houses of the two ships, and it was decided that the *Carmania* might most fruitfully be employed in looking for the *Volturbo*'s boats, and for any possible survivors in the water. This the *Carmania* proceeded to do, forcing her way against the wind for some eight miles and then circling round, but though she came upon many buoyancy tanks which had been torn from shattered lifeboats she found no men at all. By the time that Captain Barr returned other ships were arriving, the German liners *Seydlitz* and *Grosser Kurfürst*, and the American *Kroonland*. Both the *Seydlitz* and the *Kroonland* repeated the attempt of the *Carmania* to send boats, but failed as she had done to reach the *Volturbo*. The *Kroonland*'s crew were Belgian, and it is of special

interest to note that all through this international affair of the *Volturno* there was no failure in courage and devotion among the men of the many nations engaged. The British in the *Carmania*, the Belgians in the *Kroonland*, the French in *La Touraine*, the Germans in the *Seydlitz*, and the British and Dutch in the *Volturno* herself, all rose to the greatness of the occasion, and proved themselves to be true brothers of the sea.

Boats had failed, as they were bound to fail, in rendering any effective aid, though the distance between the *Volturno* and the rescuing fleet clustered about her was often no more than a few hundred yards, and this distance was crossed in one instance by a man from the *Volturno* swimming. The one boat which actually did get across, with four men in her, was curiously the one despatched at the suggestion of Second Officer Edward Lewis

Lloyd of the *Volturno*. It was late in the afternoon, and those in charge of the burning *Volturno* had watched with understanding eyes though with bitterly disappointed hearts a succession of failures to get across the gulf of stormy waters. There had been forlorn efforts made to push rescuing vessels under the stern of the *Volturno* so that communication might be established by hawsers—though they would have snapped like cotton thread,—and the situation must have looked almost beyond hope. Officers and crew were sticking devotedly to their work, but the passengers were losing heart. In Lloyd's words, "They were starting to pray and weep again seeing that no boats were coming to our assistance." So he made his suggestion to Captain Inch: "Supposing we tried one of our own boats, captain; it might encourage them." The second officer was

given permission to try, and he chose for his attempt a small lifeboat which he judged better for employment in a heavy sea than a big and cumbrous boat. He took with him four volunteers—two able seamen, a fireman, and a steward—a strange mixed lot, yet all men who “could pull.” “It was,” explained Lloyd afterwards, “only endangering life to have a person there who could not pull.” Before this small party set forth in their little boat the fleet of onlookers were warned by the still active wireless operators to be on the look-out. Made wary by the other boat disasters, Lloyd’s chief anxiety was to get his boat into the water undamaged by smashing against the ship’s side. He adopted the device of lowering his boat to within about eight feet of water with the after-part tilted down below the bows, so that when the falls were let go the boat would

dive stern first into the water and not smash flat on her bottom. By this means he succeeded in getting her in, though not without some damage. When afloat and clear of the *Volturbo*, Lloyd took the after oar himself and steered with it, backing and pulling so as to keep head on to the seas. "When I saw the white foam," said he, "I watched and backed my oar and got the boat in a fore and aft line with it, and the sea came over us but did not do us any harm." The *Grosser Kurfürst*, towards which Lloyd was making, was just a quarter of a mile away, and it took him and his gallant crew a full hour to get across this small space. The boat was leaking, no one could be spared to bale her, and it was touch and go whether she would float long enough to reach the German vessel, chosen because she happened to lie in the safest direction. By the time Lloyd

at last won his way to safety his boat was nearly full of water and quite dead to the sea, and could not have floated for many more minutes. Indeed, she sank as soon as the last man had been hauled on board the *Grosser Kurfürst*. This feat of young Lloyd, with his mixed bag of a crew, becomes the more deserving of high praise when we learn that the officer himself had been badly burned fighting the fire, and injured internally by a fall while working to secure the *Volturno's* tottering foremast. Yet he wanted—though wisely and kindly forbidden—to go back in a German boat, and in fact had to take to his bed for a couple of days in charge of the *Grosser Kurfürst's* surgeon.

By now it was night, with wind and sea slightly abating. But the unfortunate *Volturno* had not reached the end of her troubles. Just after the engineers had

come on deck, their work ended below by the complete consumption of the carefully hoarded coal, the fire reached the ship's magazine in which were kept the rockets and powder for signals. The existence of this magazine had not been forgotten, because some of the rockets had been taken out and used in an attempt to throw lines to the rescuing vessels, but the possibility of its explosion had been overlooked. About ten o'clock it went off in one fierce bang and wrecked the aerial which had been kept in action under the greatest difficulties since seven o'clock in the morning. Quite early in the day the foremast had nearly come down and with it the aerial, but means had been found to prop it up. Now, as late as ten o'clock in the evening, the loss of wireless communication did not matter very much. It was an inconvenience not to be able to talk by wireless

with the rescuing fleet, but there remained the ordinary resources of signalling. The operators, who had been on duty continuously for fifteen hours and to whose efforts was due that encouraging though helpless fleet of surrounding steamers, were then ordered out and joined others on deck who were doing what they could.

As if that explosion, with its stream of flame rising some seventy feet into the air, had been a last prearranged signal of distress, the steamers which had given up hope of taking off the *Volturno*'s crew and passengers before morning awoke into strenuous life. They put forth many boats, and did at last succeed in approaching the *Volturno*. The first to arrive, a German boat, was nearly swamped by a mass of passengers who hurled themselves at it, and had great difficulty in avoiding the fate of the *Volturno*'s own

boats in the early morning. The other boats, and there were many of them of various nationalities, kept out a little way, trying to keep station with the drifting steamer, so as to be ready to pick up those who might jump overboard. This Captain Inch urged his Russian and Polish and Jewish passengers to do, but they, though willing as they had shown to hurl themselves into a boat at the risk of sending it to the bottom, were not at all willing to entrust themselves to the sea. In order to encourage them Captain Inch invited his crew to jump and show the passengers the way; this many of them did, among them the junior wireless operator, Pennington, who has left a record of his feelings. It was not an experiment in life-saving which looked inviting even to men who for many hours, with a burning ship under their feet, had awaited

death with calm courage. The sea looked a long way off, and the boats drifting past the *Volturbo* looked farther off still. Yet after some hesitation, to which he frankly confessed, Pennington jumped and was picked up by one of the *Kroonland's* boat's crew of Belgians. Some other officers and members of the crew also jumped, and a few passengers, after seeing that those who went before had been saved by the boats.

There was little that those who remained in the *Volturbo* could now do. All efforts to keep down the fires had ceased with the failure of steam power, and no one knew, though the engineers suspected, to what extent her underwater plates had been buckled by the heat. Now that the aerial was down, and had become a mere coil of silent wire littering the deck, they had not even the small moral satisfaction of talking with their

would-be rescuers. All that they could do was to herd the passengers in the safest part of the ship aft, supply them with food and drink—the bakehouse was kept going all through the night, and the bakers who worked there were not the least devoted to their duty of that scorched heroic company,—and make such preparations as remained for saving life should the *Volturno* suddenly sink. Few expected that she would survive until daylight after suffering three explosions and so many hours of fire. The crew, guided by the half-blind captain, made rafts, and everything which would float for a while was requisitioned and tied up to serve the purpose of rafts. There had been no more boats coming alongside, or encircling the ship, since about midnight, and those small hours until day broke at half-past five must have seemed terribly long. The *Volturno* still drifted

with her stern to the wind, and the fire did not make its way, visibly, farther aft than No. 3 hatch. It was better not to think too much about what was going on below.

The one sign coming through the black night, and bearing on its white rays a continuing assurance of help whenever help became possible, was the *Carmania*'s searchlight. It had first been used to help the rescuing boats to pick up people from the water—though some of the boat's crews grumbled at it as a literally blazing nuisance,—and afterwards as a kindly means of keeping the suffering men of the *Volturno* in touch with humanity. And as it happened the *Carmania* with her searchlight did pick up many boats which could not get back to their own ships. It was dangerous with her rather unmanageable bulk to keep her in the ring of smaller vessels, so that she

lay outside, as it were, keeping goal. One of the boats thus seen and rescued by the *Carmania* belonged to the *Minneapolis*, and had been in the water for five hours with an exhausted crew. In this valuable self-imposed job of boat picker-up the *Carmania* developed a technique of her own, and steamed more than twenty miles while engaged upon it. Presently the other steamers came to depend upon her and signalled to her news of their missing craft. It was in the weather and in the darkness quite impossible for any boat putting forth from a vessel to make sure of getting back.

And so we come to the grey dawn, and to the arrival of the *Narragansett* with oil to pour on the troubled waters. It is easy to exaggerate the effect of oil ; it does not kill a swell but it does kill the breaking crests of waves by cutting off their tops. An oil bag is part of the

compulsory equipment of ships' lifeboats under regulations of the Board of Trade, and hung slowly dripping over the bows has in many boat voyages proved its value. In the circumstances of the *Volturno* rolling and plunging in a heavy sea, in which boats could scarcely live and could make little progress, the effectiveness of oil pumped wholesale upon the water is still open to doubt. And yet one can be sure that the bold use of oil by Captain Harwood of the *Narragansett* did greatly encourage the boats' crews of all the vessels to renew their exertions, and the apparent effect of the oil on the sea did bear the test of some rather striking photographs. A great deal must depend on the manner of use, and in this instance we had an oil-tanker at work under a skipper who brought brains and skill in seamanship to bear on the problem before him. He had not

himself used oil before in such large quantities, but he had no doubts about its efficacy. Even before he arrived in the early morning of October 10, after steaming at full speed for 230 miles, he sent a wireless message to the *Carmania* suggesting that lubricating oil should be pumped round the *Volturno* so as to enable the boats to get alongside. And as soon as he arrived on the scene at half-past five Captain Harwood set to work to try his own prescription. At first he pumped oil on the weather side of the *Volturno*, but presently adopted the better plan—as advised by Captain Barr of the *Carmania*,—to pump on the lee side so that the *Volturno* might drift over the broad expanse of oil and float surrounded completely by oiled water. He kept on pumping all the while the fleet of boats from the rescuing steamers were taking off the *Volturno's* people,

and he did not stop until all had left the ship. He used two four-inch hoses, and altogether poured out between twenty and thirty tons of heavy non-inflammable lubricating oil. He described the effect of it as the oil spread before his eyes: how it broke the seas, leaving just a smooth swell.

The work of rescue, with the powerful aid of the *Narragansett*, was completed in almost exactly five hours, and was got through without further loss of life. It yielded one incident of engaging human interest. This occurred when one of the *Devonian's* boats was alongside the *Volturro*. A woman threw a child, as she thought, into the boat, but it fell between the boat and the ship. Instantly one of the seamen (Hazlewood) of the *Devonian* dived after it and had it safely up before he himself could be crushed between the boat and the ship's side. "It was

the quickest thing I have ever seen," said Captain Inch, and then, smiling, told the sequel. The woman who had thrown the child "got hold of me by the arm, and she was shrieking until the man got her child into the boat again. Then she wanted to kiss me, but I told her to go down into the boat and kiss the man who had saved her child."

The *Volturno* was lost in the autumn of 1913, and all through the early part of 1914 the Board of Trade was kept busy ascertaining the facts by public inquiry, and apportioning thanks and friendly awards to the officers and men of the International Fleet who had pulled the *Volturno*'s survivors out of the fire. Among others, medals, plate, and grants in money were made to sixty-five officers and men of the Nord Deutscher Lloyd Company's steamers, *Grosser Kurfürst* and *Seydlitz*. The medals and plate were sent to the British Embassy in Berlin in July 1914, and the money grants at £3 a-head

were paid over in German marks—then worth a shilling each—to the N.D.L. at Bremen. Then came the War with its rude interruption of agreeable international courtesies, and it was not until 1923 that the Board of Trade found itself wondering whether those German officers and men of the *Seydlitz* and *Grosser Kurfürst* ever had received their awards. For though it had full evidence of the grant of awards it had none of receipt. So the official wheels began to move again, and forty-six of the medals were discovered at the British Embassy—nineteen had disappeared. The missing medals were thereupon replaced by duplicates from England, and at last in 1924 the distribution was made to all those beneficiaries who could be found and to the next-of-kin of those who were dead. Those marks of 1914 were also paid over—in 1923—though they had suffered a lamentable sea change in the course of nine years of depreciation. We have read with deep sympathy the respectful grouse of one German sailor who observed that his gratuity of 62 marks, worth three good gold English pounds when they had been paid in 1914, had by the time that they reached his hands shrunk to less than the value of three English halfpence.

IV.

THE UNSEEN LIFEBOAT

IV.

THE UNSEEN LIFEBOAT.

IT was early in May in that year of many horrors, 1914. The scene was that wedge of the North Atlantic which opens out to the southwards from Nova Scotia and the Great Bank of Newfoundland. And though the month was May and the latitude that of Southern Spain, the wind sweeping down from northern icefields was deadly cold. Here, in this inhospitable corner of ocean, with busy sea-lanes to north and south, and unseen by steamers actively searching for it, drifted a ship's lifeboat for fourteen long days. With her officer and fourteen men this boat had been thrust forth in a tearing hurry from a

steamer which was being devastated by fire and torn by fierce explosions. Many of the men, aroused from their watch below, had come away in nothing but their thin underclothing. There was no compass in the boat and no signalling flares, and both food and water were scanty. These wretched men, weakened by hunger and thirst and frozen during the bitter nights, had seen quite close to them a steamer which had picked up one of the other boats from their own ship. This vessel had looked for them, and they, with rags hoisted upon boat-hooks, had sought to guide its efforts at rescue. But all in vain. Their small lifeboat, swinging to and fro in a heavy swell, remained invisible to the rescuers. Then two other steamers had come, warned by wireless. Their officers sought diligently, quartering nine hundred square miles of ocean waste, and working sys-

tematically towards the central spot which, in their judgment, the boat should occupy. But again it was all in vain. Though from the lifeboat one of these searching steamers was seen, those who were drifting and dying in her remained unseen.

At the beginning there were in that lifeboat one officer and fourteen men. They died rapidly ; some from exhaustion, some frozen stiff at night. One went mad, drank salt water, and perished raving. At the end, after two weeks of agony, there remained the officer and three men ; eleven had died. Then they were picked up. A little longer and there would have been none to save. Cramped and unable to keep their blood in movement, they were dying at the extremities. The young officer was so far gone that both his feet had to be cut off, and one of his men who months afterwards described the sufferings of the boat's crew was not then able

to walk. "My feet," said he, "are like rubber — not much feeling in them." Things like that happen at sea, where nothing is impossible or incredible.

Almost every Tale which we tell becomes a study in contrasts with other Tales. Landsmen, groping on the surface of the earth, sometimes talk presumptuously of the "conquest of the air," but no sailor ever talks of the conquest of the sea. The sea remains after thousands of years unconquerable, and always will be unconquerable. Fire on board ship is a far greater danger in these modern days than in those of small wooden sailing-ships. For then the chief risk against which guard had to be taken was the direct contact of flame with combustible material. Now it is rare for any ship to be "set on fire" by visible agency. Fires arise in the tightly-packed cargo in holds

—from fermentation, or chemical action, or friction. They are called spontaneous, and are rarely accounted for to the full satisfaction of courts of inquiry. Goods known to be dangerous are carried under special regulations, which do not always prove effective. The fire which suddenly broke out in the British steamer *Columbian* on 4th May 1914, resembled in its probable cause that which swept the steamer *Volturno* in our previous Tale. There was no direct evidence of cause in either case, but it happened that both steamers were carrying large quantities of barium peroxide in casks, and it was shown that this substance, provided that some of it escaped from a cask and was subjected to friction in contact with wood, was quite capable of causing fire. The rough weather experienced by both steamers just before the fires and their heavy rolling might account for the escape of barium peroxide,

and for its subsequent friction against wood.

However, the direct cause of fire, important and interesting though it may be to determine, does not concern us. This Tale relates the effects, which, sudden and violent in the case of the *Volturno*, were far more violent and more disastrously shattering in the case of the *Columbian*. The officers, crew, and emigrant passengers, working and lamenting on the hot decks of the *Volturno*, did not pass the limits of endurance before they were taken off some twenty-four hours later, and the vessel herself remained afloat until sunk a week afterwards by the Dutch steamer *Charlois* as a danger to navigation. Contrast with this the *Columbian*. Within very few minutes of the outbreak of fire at midnight, the whole forepart as far back as the engine-room was rent by explosion, and the surviving officers and

men were clear of the ship in three boats within forty-five minutes. And not a minute too soon. Not one would have lived to tell the tale had the sea made boat-work impossible, as it did some six months earlier in the case of the *Volturino*.

The *Columbian* was blown up and lost as suddenly, and almost as rapidly, as many other British steamers were lost in the years to come by enemy torpedoes. She had left Antwerp on the morning of 23rd April, bound for New York. Her tonnage was slightly over 5000 gross, and she had been built for the cattle trade. Upon this last voyage of hers she carried no cattle, and her dangerous cargo of barium peroxide and tar oil was stowed on the upper cattle deck. The weather was fine until Sunday, 3rd May, when a strong breeze blew up, increasing towards night. About eleven o'clock that night the vessel began to roll heavily, and

almost exactly at midnight fire was reported forward. The next few minutes were packed with incidents culminating in a tremendous explosion. We will take them one at a time. There were two, and maybe three, minor explosions at the very beginning, by which No. 1 hatch was blown off and a way opened for the spread of the fire. The Captain instantly ordered the ship to be put before the wind so as to keep the fire from spreading aft, and measures were at once taken to connect up the fire-hoses and to start the steam-pumps. But the barrels of tar oil, situated near the source of the fire, quickly heated up and gave off thick fumes, which, mixing with the air, made a powerful explosive. These fumes spread along between the decks and reached the engine-room. The simple account of one Delp, a greaser, brings home to us the speed of events more impressively than

bald figures of minutes passed. It was his watch in the engine-room at midnight, and he went down at four minutes to the hour. He was then told of the alarm of fire. He went about his duties, first feeling "my bearings" of the engines. Thence he climbed down to the engine-room plates, sniffing at the smoke which was spreading around him. "My first work," said he, "after I went below, was to fill my eccentric pans with water. I filled the first one and walked just round on the back plate for a second bucket of water for the second pan when the explosion came." It could not have been more than two or three minutes since he began his work. "When I stooped to lift the second bucket of water, the explosion came from under my feet, and I was thrown plump up above amongst the pipe work and grating as high as I could go. And when I came down I lay down in the bilges. The plate

100 TALES OF S.O.S. AND T.T.T.

(engine plate) was totally smashed up." This explosion, which tossed Delp like a feather about the engine-room, put a stop at once to all efforts to extinguish the fire. It broke the main steam-pipe and stopped the engines ; it cut off the pumps ; it killed the second engineer, and it mortally wounded the fifth engineer. It did other serious damage above deck to which we will come in a moment.

Ship captains sleep with one eye open, and Captain John MacDonald of the *Columbian*, though he was lying down when the fire was reported, was on the bridge a moment later. He gave the orders, already referred to, to put the ship before the wind and rig the pumps. Then he turned to Michael Burke, the senior wireless operator of the two who were carried, and gave him preliminary instructions. The wireless part of this tale is of peculiar interest, and we must give it in

some detail. It happened that about one o'clock on the Sunday afternoon, eleven hours before the outbreak of fire, the steamer *Winifredian*, of the same owners, had been close to the *Columbian*, and Burke had been talking with her. Both vessels were western bound, one for Boston and the other for New York, so that they gradually separated as the *Winifredian* trended towards the north and the *Columbian* towards the south. Captain MacDonald was not, at the moment when Burke consulted with him, in a position to send out a general S.O.S., because he had not yet worked out the latitude and longitude of the ship at midnight, and it is, of course, of very little use to throw an S.O.S. on the ether unless it be accompanied by the exact position of the vessel in distress. So, in order to save time, he instructed Burke to call the *Winifredian*—which he judged to be about

thirty miles distant—to say that the *Columbian* was on fire, and ask for assistance. In the meanwhile he took steps to ascertain his position, so that a general S.O.S. might follow. This was at a minute or two past midnight at the time when our greaser, Delp, down below, was beginning his routine job of feeling bearings and filling up the eccentric pans with water. Burke at once entered the Marconi house, which was on the deck near the bridge. He sent out the *Winifredian's* call sign three times, and then his own call sign three times, and keyed out the message “Here *Columbian* on fire come immediately.” It was ascertained subsequently that the *Winifredian* was no more than twenty-five miles away, and within loud calling distance of Burke’s spark transmitter. But his urgent call was followed by blank silence; there was no trace of acknowledgment from the

Winifredian. Burke, suspecting that his aerial had become damaged, decided to test it before trying to get the *Winifredian* again. He rapidly tuned in the shore station at Sable Island, 200 miles away, heard its signals, and, satisfied that his own apparatus and aerial were in order, tuned back to the standard 600-metre wave-length. This test—which was afterwards commended by his superiors as a proper precaution—did not occupy more than a few seconds.

Then, before Burke could again call the *Winifredian*, came the explosion, and the whole side of the wireless house was blown in upon him. The receiving instruments were thrown upon the floor, and outside the aerial was wrecked with the mast which supported it. By that explosion the *Columbian* was stripped of her wireless before it had been possible to send forth a general S.O.S., and while

Burke's message to the *Winifredian* was still unacknowledged. Burke struggled out from amidst the ruins of the wireless house, and asked if it were possible to rig up a temporary aerial. But Captain MacDonald, with the deck blown up, the engines and pumps out of action, the deck-houses in matchwood, and the bridge on fire, was more concerned at that moment of disaster with getting out the boats than with worrying about aerials. Besides, the messages to the *Winifredian*, only twenty-five miles distant, had gone out, and he expected that it would be rapidly repeated to all steamers within easy distance to render assistance. As a matter of fact, in the brief time available, the Captain had got ready an S.O.S. call giving his midnight position, and was about to hand it to Burke when the smash came.

The story of that unheard message of

distress to the *Winifredian*, keyed out by Burke during those intensely critical minutes between the outbreak of fire and the fatal explosion, is one of sheer bad luck. Indeed, the unheard message comes appropriately in the same Tale with the unseen lifeboat, as examples of the heartless triflings of the Fates with poor mortals. Much searching of wireless logs in the subsequent investigation proved beyond a doubt that at the precise moment when Burke was sending his call to the *Winifredian* her operator on duty was transmitting a message to another steamer, and could not possibly hear it. We must make clear that a ship's aerial is used both for receiving and transmitting messages, but that it cannot do both things at once. When it is switched through on to the transmitter, it is automatically switched off the receiver. So that in so far as the *Wini-*

fredian was concerned that urgent call might not have been sent. And as it happened, not one of three other steamers within receiving range of the *Columbian* did hear it. This is not so surprising as it may sound. Burke's call to the *Winfredian* was specific, not general. It began with the formula of call signs repeated three times, meaning that one ship desired to speak to another specified ship, and operators in other vessels would at once and automatically shut their ears to it. There are in crowded waters very many ship calls going out simultaneously on the same wave-length at varying strengths. Wireless operators develop a professional faculty for selection or rejection. They pick out their own call sign instantly, and a general S.O.S. alarm rings in their ears like a firebell going down the Strand, while the private calls and messages of other vessels are rejected.

But though no steamer within wireless range took in Burke's forlorn call for help, it did reach, in a faint confused form, the ears of the operator at the land station of Sable Island 205 miles distant. It will be remembered that the *Winifredian* was transmitting at the exact moment that the *Columbian* was also transmitting—that was why Burke's cry for help fell upon an unresponsive aerial,—both were using the standard ship wave of 600 metres, and both were at approximately the same distance from Sable Island. So that this station got the messages simultaneously and mixed up, and did not comprehend from them which steamer was on fire and calling for assistance. Neither Captain MacDonald nor young Burke was in the least to blame for this "cussed" chapter of accidents. They did all that was possible in the time available. Had the explosion been de-

layed five minutes Burke would have got out the general S.O.S. which the Captain had prepared for him giving the *Columbian's* midnight position, and would have called up the *Winifredian* again and got through to her. The two men were beaten by minutes, as have been so many other seafarers.

So far we have told the story of something less than ten minutes in the doomed *Columbian*, which shows how extremely important minutes can be. Nothing now remained to do except to get out the boats with all speed. There were no passengers, and the boat accommodation was ample. The conditions of the sea, though a heavy swell was running, were not such as made the *Volturno's* boats little better than death-traps, but it was not an easy task to get boats safely manned with the engines stopped, the steering gear wrecked, and all electric

light cut off by the smashing of the dynamo. It must have been a lurid business on that black Monday morning swinging boats out-board amid flames and tar oil fumes and in momentary expectation of another and final explosion. The first to get away was our "unseen lifeboat" (No. 3), in charge of First Officer Thiere; then went a boat (No. 1) in charge of the boatswain; and finally (No. 4) with the captain and the remainder of the crew. The second boat was actually launched into a pool of burning oil, but though badly scorched was not seriously injured. The equipment of the boats was in two respects gravely defective. There were no compasses, and for an odd reason. By Board of Trade regulation every ship's lifeboat should have a compass always on board, but the longshoremen of Antwerp had revealed a passion for stealing any movable and portable brass-

work, so that the compasses had been taken out and stored in a lamp cupboard close to the boats. But when it was sought to get at those compasses for the boats, the door had been jammed so tightly by the explosion that it could not be opened. Also the boats had no rockets or signal flares, a very unfortunate omission for the First Officer's boat (No. 3). In the darkness the boats' crews saw nothing of one another, and were out of sight of the burning *Columbian* by half-past two on that Monday morning. "When I last saw her," said the Captain, "she was burning all over, and every now and then it looked to me like a battle royal of snowballs with fireballs—balls of fire going up which the wind would blow off."

It was not until another twelve hours had passed that the world learned how the *Columbian* had been burnt and aban-

doned. Happily for two of the boats' crews she did not sink immediately, and was seen derelict on the Monday afternoon by the German steamer *Seydlitz*. Then for the first time a wireless message was sent forth which fell on listening ears, and set all steamers in that North Atlantic wedge on the look-out for the *Columbian's* boats. The *Seydlitz* called up Sable Island, and Sable Island issued a general warning to all ships in the vicinity. Among the operators who took in this call were those of the *Winifredian*, who, in this roundabout fashion, learned at last what Burke had been trying to tell them nearly fifteen hours earlier. They were then as deeply puzzled as was every one else—until the solution of the mystery had been laboriously worked out,—how the *Columbian* could have been burned and abandoned within a few miles of them without letting them know about it. The

boat regulations of the Board of Trade, constantly revised in the light of maritime experience, are designed to ensure that boats shall always be equipped and ready for emergency employment. And it has been proved upon many urgent occasions how vitally necessary is precise attention to the detail of those regulations. The boats of ocean-going vessels are inspected at every Board of Trade survey, and officers of ships are made responsible for opening out the boats at frequent intervals and testing their contents. The boats carry, secured to the after-thwarts, a sealed tin of biscuits and a breaker of water. Matches are secured in a watertight case, and there is a lamp with a supply of oil. In addition there is an oil bag for dripping oil on the "troubled waters," a sea-anchor, oars, mast and sail, boat anchor, and so on. When there is time ships' officers supplement

the minimum requirements of provisions and gear borne in the boats, but on the occasion of the *Columbian* disaster there was no time to spare. The boats were launched as they were swung out, and many of the men, especially those from the engine-room, had nothing on but a pair of trousers and a singlet. The compasses which should have been in the boats could not be got at, and though there were plenty of flares in the ship, none were in the boats.

For the story of the unseen lifeboat we have to depend upon the verbal evidence of one sailor, Kindall, the depositions of another sailor and a fireman, and such particulars as could be learned from that sorely stricken man, First Officer Thiere. A very plucky and enduring man was Mr Thiere, who, in one of his letters from hospital at Halifax to his captain, wrote: "I have been under an

operation since last I wrote to you, and have had both feet amputated, but I am feeling all right now. The other men have all gone from here now, so that I am all alone. I expect to leave here in about eight weeks." The other men to whom he refers were in hospital five or six weeks.

Mr Thiere's boat, with its fifteen occupants, got safely away, though a heavy sea was running, and lost sight of the *Columbian* after two or three hours. The other two boats were not seen at all. Misfortunes came quickly. A sea-anchor was put out to hold the boat head to sea, but the rope which secured it broke. The same thing happened to a second improvised sea-anchor, after which none were left. The men put out their oars, of which there were eight, but very soon heavy seas came over the boat and carried three oars away. That was two

hours after leaving the ship. Then the boat was allowed to drift. So the night passed and the day until near sunset on the Monday evening. Early that afternoon the *Seydlitz* had found the *Columbian*, and sent out wireless news of her abandonment, so that many steamers were on the look-out for boats. Among them was the *Franconia*, which on that Monday evening sighted No. 1 (the boatswain's boat) of the *Columbian*, and picked up her occupants. At this moment Mr Thiere's boat was so near that her crew could not only see the *Franconia* and make out the coloured bands upon her funnels, but also could see her stop and rescue boat No. 1. Kindall judged her to have been no more than three-quarters of a mile away, but may have underestimated the distance. Distance at sea, especially from low down in a boat, is notoriously difficult to judge correctly.

Yet, though so near as to be able to see distinctly and afterwards to describe the *Franconia*, the unfortunate men in No. 3 boat were themselves unseen. The *Franconia* kept on looking for them during what remained of the daylight, and they themselves put up a bit of canvas on a boat-hook, but the night came down, and they remained unseen. It was at a moment like this that flares would have been beyond price. But there were none, and though matches and a lamp were in the boat they do not seem to have been used. It was alleged that the matches were damp and useless. That was on the Monday evening some nineteen or twenty hours after leaving the *Columbian*.

Meanwhile the wireless was active, and the hunt for the missing boats—No. 4 (the captain's) boat had not yet been found—was taken up systematically by the *Manhattan*, belonging to the same

owners as the *Columbian*, and the Wilson liner *Marengo*. They received from the *Franconia* the position of the boat picked up on the Monday evening, and were able to reckon where or whereabouts the other boats should be. It was early on the Wednesday morning that the *Manhattan* picked up the captain's boat about ten miles from the position indicated by the *Franconia*. The steamer was first seen from the boat at about four or five miles distant, and her attention was called by lighting the lamp and swinging it round. It then looked to those in the *Manhattan*, and in her consort as rescuing ship the *Marengo*, that No. 3 boat must be fairly near the patch of ocean in which the other two boats had been found. And so, as we know, she was. The two steamers searched on a concerted scheme over a square of about thirty miles each way, taking the position of the captain's boat

as a centre. The *Marengo* took the angles of the square, and the *Manhattan* the sides, both vessels gradually reducing the square as they closed in towards the centre. Their calculations were correct, No. 3 boat was there all right within their area of search, yet though they continued their quartering of the ocean for twenty-six hours no boat could be seen. But though themselves unseen, the men in No. 3 boat saw one of these searching steamers in broad daylight, at two o'clock on the Wednesday afternoon. There was a heavy swell running. First Officer Thiere ordered the remaining oars to be put out and the men to row towards the steamer, but she was moving away at the time, and soon passed out of sight. After that no more vessels were seen, though every steamer on the many steam-lanes to north and south continued to be on the look-out.

From thence forward the story is one of suffering, of hunger and thirst and bitter cold. It is a story common enough in the old days of boat voyages before wireless came in with its beneficent aid to distressed mariners, though one which should be almost impossible now. For this boat, drifting helpless and unseen, lay in one of the most frequented parts of the ocean highways, with its distresses known and its position roughly calculable. In the absence of convincing evidence to the contrary, we must take it that the supplies of biscuit and water on board were in accordance with the regulations. At first, apart from cold and the bitter disappointment of seeing rescuing ships so near and yet so unseeing, the men suffered little from hunger and thirst. Mr Thiere, who kept all provisions in his own charge, allowed his men a pint of water a day and two and a half ship

biscuits. Then, when the sun rose day after day upon a deserted sea, he cut down the water to half a pint and the biscuit ration to two and even one a day. For a week, until the Sunday following the abandonment of the *Columbian*, there were no deaths. No care in prevision can take account of everything, and the regulations which laid down the minimum equipment for boats could scarcely contemplate that any boat would drift in the North Atlantic for more than a week. One cannot suppose that a competent officer like Thiere would have been content to drift aimlessly had he possessed a compass, and means of fixing his position and setting a course. But situated as he was in weather which was always wet and stormy when sky and sea were not smothered in Newfoundland fog, he could do nothing except drift. He knew from the searching steamers that the plight of

his unhappy boat's crew was known, and he must have expected any day to be discovered and rescued. In these circumstances it was probably best for him to remain as near as the sea would permit to the spot where the other boats had been picked up.

The first man to die, after a week of painful tossing and of slowly failing vitality, came to his end quickly through drinking salt water. He was a fireman, who, after the enervating heat of the stokehold, was less capable of withstanding cold than were the more robust sailors. Then, as hope failed, other deaths followed quickly. The men, with little space in which to move their legs and with no warm clothing, dropped one after another from exhaustion and frostbite. "We kept them," said a survivor, "for a couple of hours till we were sure they were dead; then we buried them. Some of them had

clothes on, and we took the coats off them and their boots and put them on us.” The rain which soaked their wretched bodies came as a blessing, for they caught a lot of it in the boat’s sail and helped out the water rations. After the death of that fireman none perished through drinking salt water. All the eleven deaths befell in six days, and then on 17th May, another Sunday, the American patrol cutter *Seneca*, which was out hunting for them, at last succeeded in her quest. The end was very near. All the biscuits had gone. “There was a little biscuit crumb left, that was all. We had to mix it with shoe leather.” Some water still remained—that providential rain-water,—but another day or two must have completed the tale of deaths. As soon as the *Seneca*’s smoke was seen the feeble frost-bitten survivors put out oars and tried to row, but, fortunately, their poor expiring efforts were

not needed. The coming patrol boat sighted them at once, steered straight for them, picked them up, and carried them off at full speed for the hospital at Halifax, Nova Scotia. And high time too. It took a month of nursing in Halifax before the strongest of those four men could feel the tingle of returning blood in his feet.

V.

RED OR GREEN

V.

RED OR GREEN.

"GREEN to GREEN—or RED to RED,
Perfect Safety—Go Ahead."

FOUR verses, as Aids to Memory, are printed in Appendix E of the Board of Trade's Regulations for the Examination of Masters and Mates. Upon the application of one of them—those two emphatic lines printed above—turned the safety of a great passenger steamer and more than fourteen hundred lives. It was towards the end of the same month of May in the same fatal year, 1914, as that in which the "Unseen Lifeboat" of our last Tale tossed unregarded in the North Atlantic. But the scene and the conditions have

become wholly different. We have now to do with the St Lawrence River, a short distance below Father Point, where the noble stream widens out in a vast funnel opening towards the Atlantic. More than forty miles of water, twice the width of the Straits of Dover, stretch from bank to bank. The night was fine and generally clear, though now and then patches of fog drifted slowly over the quiet surface. At the time with which we are concerned in this tale, between half-past one and two o'clock in the morning of 29th May, two steamers were moving cautiously over this wide stretch of inland sea, observing one another at intervals, and keenly regardful of one another's proximity. In so ample a space, and with navigating officers on the alert, the possibility of a collision might have seemed too remote for calculation. Odds of a thousand to one against would have scarcely been

worth taking. Yet the thousand to one chance came off. By one of those devilish tricks of misguidance with which the sea is always trying to confuse the senses and the minds of unhappy mariners, the two vessels were brought into violent contact. The passenger steamer, frightfully gashed from bilge keel to shelter deck, instantly heeled over, and sank within a quarter of an hour. Of the passengers and crew nearly one thousand were lost. And it all happened because of the wrong conclusion drawn by one officer from a momentary glimpse of a coloured lamp.

A steamer at night carries white lights on her masts, and coloured lights on either beam. The starboard, right-hand, light is green and the port, or left-hand, light is red. These colours are easy to remember if we will bear in mind that though chartreuse may be green, port is always red. An officer on the bridge of

one vessel may approximately determine the bearing and course of another vessel, in relation to his own, by carefully observing the disposition of these lights. Suppose, for example, one sees a green sidelight and two masthead lights widely spaced, one can conclude that the ship is showing her starboard side and is crossing one's own course. If the masthead lights appear to close up (one is placed higher than the other), then it can be judged that the distant ship is turning her bow or her stern towards oneself. If this should happen, the green light disappear, and the red light be seen, then there has been a swing round relatively to oneself, and the vessel is now showing her port instead of her starboard side. This language of lights and colour, with which many readers will be familiar, is of high importance in the navigation of all waters, and most important of all in narrow

waters. An error of interpretation, especially when observation is interrupted by fog or haze, may lead to the gravest disaster—as it did in the lamentable case of the Canadian Pacific Railway Company's *Empress of Ireland* and the Norwegian steamer *Storstad*, in the early hours of 29th May 1914.

Then, in order fully to understand the devastating suddenness and completeness of the disaster which sent the *Empress* to the bottom in less than fifteen minutes—a vessel built at Fairfield on the Clyde, and embodying in her bulkheads the conclusions of the Board of Trade Bulkhead Committee—we must realise how frail a work of art is a modern steel steamship, and how unstable as soon as the inflow of water in large volume sets at naught the designs of her builders. The plates of the *Empress of Ireland* were less than an inch thick. Her decks were less than half

an inch thick. She weighed 18,000 tons. This was the actual displacement weight, not measurement tonnage. The *Storstad*, loaded with 10,400 tons of coal, weighed nearly 14,000 tons in all. Though the speed of the *Storstad* at the moment of impact was slow, and the jar of the collision seemed no greater than the bump of a cross-channel steamer against a pier-head, yet the bows of the *Storstad*, striking the *Empress* almost at right angles, cut a gash through her side and decks fifteen feet deep and twenty-five feet wide, at least. The *Storstad*, built on the Isherwood system with longitudinal frames, was like a sharp heavy battering-ram striking a loaded box on its weak side. Think of the inertia of those two vast weights, of the one which could not be stopped and of the other which could not give before the blow. The old wooden ships, with their stout elastic timbers and their light

weights, could knock one another about and suffer small hurt except to their spars. Collisions troubled them little. But the modern steamship, built to carry huge weights and to be powerful under strain, cannot endure heavy blows. She crumples. And so it has come about that collision, from being a lesser peril of little moment, has become the gravest of all dangers in the navigation of our crowded seas.

The *Empress of Ireland* left Quebec on her last voyage in the afternoon of 28th May with a crew of four hundred persons and more than a thousand passengers. At half-past one in the early morning of the 29th she dropped her pilot off Father Point, that curiously named headland which four years earlier had witnessed the first and most exciting of wireless romances —the arrest of Dr Crippen. Fog had already been met with in the run down the river, and Captain Kendall was on

the look-out for more as the St Lawrence widened towards the sea. He set his course to the north-east, and ran for some three and a half miles in fine clear weather, at a speed of seventeen knots. During the run a steamer's lights—those of the *Storstad*—could be seen bearing between three and four points off the starboard bow, and at an estimated distance, when first observed, of about six miles. The *Storstad*, with a cargo of coal from Sydney, Cape Breton, was coming up the river at a speed of about 10 knots. Up to this stage—the exact times are difficult to determine—there was no risk of a collision. The two steamers were showing green to green, and their courses, had they been continued, would have carried them well clear of one another. Captain Kendall then, following his usual track out of the St Lawrence, altered his course 26 degrees (rather more than two points)

towards the east and towards the *Storstad*. This change brought the lights of the *Storstad* about one point ($11\frac{1}{4}$ degrees) on his starboard bow. The vessels were still green to green, but the lines of their courses were much nearer together. It was at this moment, a highly critical moment as it turned out, that the fog came down again, drifting from the *Empress* towards the *Storstad*. Captain Kendall watched the green light of the other steamer until it became blotted out by fog; he then stopped his ship by going full speed astern, and signalled the manœuvre by three short blasts.

We must now betake ourselves to the bridge of the *Storstad*, carefully remembering that the *Empress* has now been stopped, and that she is still lying green to green if those on the *Storstad* could have seen her lights.

On the bridge of the *Storstad* were Chief

Officer Toftenes, Third Officer Jacob Saxe, and the man at the wheel. The captain was below, and, though fog was coming on, was not summoned until just before the collision took place. The officers responsible for what happened were Toftenes and Saxe. We may say here that none of the *Storstad*'s people appeared to advantage at the official inquiry which was held in June, some three weeks later. They were badly frightened men, they knew English imperfectly, and they were severely, almost savagely, cross-examined. They were all terrified by the hostile atmosphere which surrounded them, an atmosphere tempered in the Court by judicial procedure yet unrestrained outside. As the sweat dripped off their white scared faces, and they blundered in their replies to keen fierce questions, they must have looked like suspected murderers on trial for their lives. In their terror these

Norwegian sailors entangled themselves in explanations, which left the cause of the disaster more tangled than ever, and themselves more suspect than ever. It was not until many days had passed that the mistake which they had made, the honest mistake, began to emerge from the fog of charge and counter-charge.

This is what it was. When the *Empress* changed her course towards the east she could not have been much more than a mile distant from the *Storstad*, and the fog was just about to come down upon her. Toftenes watched the change take place. He swore, and in this he was supported by Saxe and others, that he first saw the green light, that as the *Empress* swung the white range lights upon her masts came into line, and that then the red (port) light showed. This was just before the fog blotted out all the lights. Toftenes interpreted the change

in the *Empress*'s lights to mean that she was no longer showing green to green but red to red, that she was crossing the *Storstad*, and that she intended to pass port to port (red to red) instead of starboard to starboard (green to green). That mistaken deduction of Toftenes was the direct cause of the disaster. How did it come about? The explanation offered here seems to us the only one which is plausible or possible. It was hinted at by the Canadian Deputy Minister of Justice, but was not put forward by any of the contending counsel. It seems to us beyond doubt that when the *Empress* was in the act of changing course her bows swung farther round towards the *Storstad* than her captain had ordered and than her quartermaster intended. She must have swung, momentarily, so far to starboard that her red port light became visible—it may have been for no

more than a few seconds—to those on the bridge of the *Storstad*. Then, as the quartermaster steadied her, the bows must have come back a point or so upon the course as ordered. Had not that fog come just when it did, that swing too far to starboard, and the subsequent steady-ing, would have been visible from the *Storstad*, and Toftenes would have seen that the *Empress*, though her course had been changed and her red light had gleamed for a moment, still remained green to green. An involuntary swing, such as that described, is not at all un-common in the steering of long lean mer-chant steamers, and there was a good deal of evidence to suggest that the *Empress* had a habit of swinging more than is customary while on a set course. Every vessel sways a little too and fro ; she never, not even when steered by gyro-compass and mechanical gyro-pilot, runs

on a straight line. Relatively to the length of a steamer the rudder is very small, about one-seventieth part.

Now we have set in a calm sea, amid whisps of fog, all the conditions ready and prepared for a first-class maritime disaster. The *Empress* has been stopped, while the *Storstad* is still coming on. Toftenes thinks, on the evidence of that red light, that the *Empress* is now crossing on his port bow; actually she is stationary on his starboard bow. Even now, had he been content to leave well or ill alone, there would have been no collision. The *Storstad*, moving as she was, had room to pass safely. But Toftenes, out of anxiety to make safety more safe, out of a desire for sea room, and because he thought the currents might lessen the narrow gap between the steamers, gave the fatal order which was the immediate cause of the collision. Deeming

the *Empress* uncomfortably near on his port (left) hand, he made a change of helm which would throw the head of his steamer round to the right (starboard) hand. In doing so he steered his vessel towards that one spot in all that wide stream where the *Empress* lay. And to emphasise the error of Toftenes, to underline blackly his terrible mistake, the Third Officer Jacob Saxe must butt in on his own account, take the wheel out of the hands of the quartermaster, and put the helm hard over to port, and the *Storstad's* bows, in consequence, hard over to starboard. The *Storstad* was not moving fast, her engines had been slowed down, and at the last, when the undefended side of the *Empress* loomed up before her bows, she went hard astern. But it was then too late. The *Storstad* fell upon the *Empress* almost at right angles, cut her down, and bore her

down so that she never righted from the stroke.

In order that the disaster might be the more complete, the spot chosen by remorseless Fate for the entry of the *Storstad's* cleaving bows was just that one where the injury would most rapidly be fatal. Had the *Empress* been hit more towards the bows or towards the stern, the closing of bulkheads would in all probability have saved her from sinking. She was designed so as to float even though three compartments were laid open to the water. But she was struck right on the big bulkhead which divided the two long boiler-rooms, so that both rooms were simultaneously opened to the sea. And thrown on her starboard side as she was by the entering weight of the *Storstad*, and by the water which followed at the rate of 260 tons a second, she was borne down and down on that side be-

yond hope of recovery. The inpouring of water prevented the closing of other bulkheads on that stricken starboard side—except the one between boiler and engine-rooms,—several of the lower cabin ports were open, and the stability of the *Empress* was quickly gone. At the end she rolled flat upon her side and sank.

Captain Kendall was on the bridge of the *Empress*, his ship to all reasonable appearance in perfect safety, when the lights of the *Storstad* emerged from the fog on his beam not more than a hundred yards away. He roared to the *Storstad* to go full speed astern and himself telegraphed for full speed ahead, but there was no time for either manœuvre to take appreciable effect. We can judge of the terrible suddenness of the shock by this: as the *Storstad's* engines were violently reversed she gave the signal of three short blasts on her whistle, and cut into

the side of the *Empress* at the instant when the third blast sounded. An effort to keep the *Storstad's* bows against the *Empress*, to make her serve as a plug for the hole which she had cut, failed ; the two steamers fell apart and for a while lost one another in the fog. The exact moment of the collision was 1.55 A.M. Montreal time, and the passengers were all abed.

Orders were given by Captain Kendall to get out the boats. There were plenty of them, more than enough to take all on board ; the sea was calm, and the *Storstad*, though for the moment invisible, lay hard by and ready to pick up the *Empress's* people. But here, as happens so often, the best laid schemes of men went aft agley. The *Empress* immediately took a heavy list to starboard (the stricken side), and every ton of water flowing aboard made that list worse. It was

manifestly impossible to launch any boats on the other side, the port side, which every instant was rising higher and higher out of the water. We have seen that the bows of the *Storstad*, by splitting the bulkhead between the *Empress's* boiler-rooms, laid both open to the water. The almost immediate effect—think of water flowing in at 260 tons a second with nothing but the opposing coal-bunkers along the sides to hold it up—was to swamp the boiler-rooms, drive all the men out helter-skelter, and to cut off power from the engines and dynamos. The engines stopped and all lights went out within a very few minutes, and before the boats could be launched. Though not before, as we shall presently see, the S.O.S. signals were got away. Even in circumstances such as these, circumstances which might excuse failure of courage in the stoutest heart, there was no panic.

The shock of the collision had been so lightly felt that most of the passengers would have remained sleeping in their berths had not the stewards, rushing from cabin to cabin, aroused them, assisted them to put on lifebelts, and shepherded them up the tilted companion-ladders. There was confusion, of course, but men and women remained admirably quiet and waited patiently for orders. They knew nothing—it was as well—of the imminence of the sinking of the *Empress*, but the great and visibly growing list must have told the least observant that all lives were in the gravest peril. Of six lifeboats on the starboard side which it was attempted to fill and launch, four took the water safely—one capsized, and one was crushed under the foundering vessel as she rolled over. Then, at the moment of sinking, when the deck of the *Empress* approached the perpendicular, the port

lifeboats tumbled out of their chogs, slid across the deck, and crashed upon the mass of wretched passengers and sailors crowding against the starboard rail. This may have contributed nothing to the death-roll, yet it aggravates the already abundant horrors in that scene of death which was being played out to its ghastly end in the darkness.

Just before the end the Chief Steward, Gaade, who had swept the cabins clear of passengers and fitted them with life-belts, went up to the captain on the bridge. "Well," observed he composedly, "this looks to be about the finish." "Yes," assented the captain, "and a terrible finish it is too." Half a minute later both were in the water, but, as it happened, both were plucked from the finish that they had been quietly expecting. "I never saw any misbehave themselves at all," said Gaade, three weeks

later in his evidence. "Every one that I saw was behaving well."

Two narratives, one by a male passenger and the other by a stout-hearted plucky woman, should be given in this Tale. We may regard them as exemplifying the courage with which men and women of our race, suddenly aroused from peaceful sleep on a calm night in spring, confronted one of the most nerve-shattering disasters in the history of the sea. Mr George Bogue Smart, a first cabin passenger, told how he had been awaked by sirens and whistles blowing, and then felt the shock of the collision. His cabin was on the starboard side, and looking out of a port-hole in the passage-way he actually saw the bows of the *Storstad* sticking into the side of the *Empress*. He then went on deck, found a general confusion, though no panic, and perched himself on the port-rail out of the crush. The slope of the

deck was about 40 degrees—about the steepness of the roof of a house—so that Mr Smart had to scramble up on his hands and knees. “I climbed out on the rail,” said he, “put my arm round the post, and just sat and waited.” So he sat and waited until the ship went down, when he was shot forth into the water. It was because Mr Smart “just sat and waited” that we have selected his story for preservation, and are delighted to be able to record that, after an hour in the water, he was picked up by one of the vessels summoned by wireless calls. It was so much the best thing to do, just to sit and wait, and so much the most difficult. He spoke of the discipline on board, and of the kindness of crew to passengers, and of passengers towards one another. “It was really marvellous. I never heard people who spoke with such tenderness to each other as in that time of distress and danger.”

Mr Smart had no lifebelt, neither had Miss Townshend, who was also awakened by whistles before the collision. Miss Townshend dressed herself—and was rather sorry later on in the water that she had taken this feminine precaution—and made her difficult way up to the boat deck. She stayed up on the high port side until the deck was too steep to stand upon, and then composedly straddled out over the port-rail and walked on the almost horizontal side of the ship, “right over the port-holes down on to the steel side of her.” She was standing on this port side when the *Empress* went down. It was fortunate for this brave woman that she was an excellent swimmer, for she had no lifebelt, and was carried deep down by the sinking vessel. And when she came up exhausted and approached three men who were wearing belts, they pushed her away. These things happen,

for not all men reveal in disaster the kindly tenderness spoken of by Mr Smart. Then Miss Townshend ranged up alongside a man who had a lifebelt, and who was hanging on to a suit-case which he had picked up in the water. "I asked him if he would give me the suit-case, and he said, 'most certainly.'" Then this obliging man—we will have his name, it was Burt—helped Miss Townshend to get rid of a coat which she had put on in her cabin. She also had on shoes of which she could not get rid, and they were "a terrible tie." Still she had the buoyancy of that borrowed suit-case to help her along, and she swam nearly the whole way to the *Storstad*—the "coal boat," as she called it—before being picked up. If any one had earned a right to be saved it was this admirable Miss Townshend.

The wireless work was exceedingly smart,

and led to the saving of many lives. At the moment of the collision the assistant operator, Edward Bamford, was on duty : the senior, Ronald Ferguson, had just gone off to his sleeping-cabin. Bamford, through the window of the Marconi house, saw the *Storstad* in the act of ramming the *Empress*, and then watched her drift by towards the stern. He at once called Ferguson, who was already out of his bunk. Without waiting for orders Ferguson instantly called up all stations by the recognised code, and told them to stand by for a distress signal which he was momentarily expecting to receive from the bridge. This was done to clear the ether of traffic and leave it open to him exclusively. Father Point at once answered, "O.K. Here we are." He then sent Bamford to fetch him some clothes. Just then up came the chief officer, who told him to get out the S.O.S.

without delay, as the ship was sinking. "I sent it out," said Ferguson afterwards, "very slowly because I knew that at that time there would be no senior operators on watch, so I sent it out very slowly to give the junior operators a chance to understand." Marconi operators are not sailors ; they are not, strictly speaking, officers of the ships in which they serve. Any telegraphist, with the floor of his wireless house tilting rapidly under his feet, might pardonably have been flustered. Yet this young fellow had the composure to think of those junior operators ashore who might fail to follow and interpret rapid expert touches on the Morse key. Father Point asked at once for the *Empress's* position. Ferguson did not know it, no bridge officer had given him the position, yet recalling the time when the pilot had been dropped he reckoned the position for himself, and

gave it as twenty miles past Rimouski (which is farther up the river towards Quebec than is Father Point, and is the port for Government tugs). Then to show how urgent was the question of time, and how wise Ferguson had been to give the position as best he could without orders, "the power shut right off, and my handle went back and I was left without any power, and the lights went out too." It will be remembered that the swamping of the boiler-rooms robbed the engines of their steam, so that when they stopped the dynamos stopped too. By this time Ferguson was standing with one foot on the bulkhead and one on the floor—a vivid illustration of the list,—and all his books, papers, and loose gear were scattered over the deck. Going outside he met two of the bridge officers, who told him to clear out for the boats. But Ferguson was doing nothing of the sort.

The power of the ship's dynamo was cut off, but he still had his emergency transmitter fed by accumulators, self-contained and kept ready for just such an occasion as had arisen. "So," said he, "I went back into the cabin to work my emergency to see if I could get another call in." But when he came to work his emergency it failed to respond to his self-sacrificing zeal. The ship was almost over on her side, and the accumulators had burst and spilled their contents. Then and then only he thought of his own safety, and from the rail was jerked overboard as the *Empress* went down. About a quarter of an hour later he was run into by one of the boats and managed to scramble over the gunwale. Bamford, the junior operator, also was saved, and both these lads well merited the comment of Lord Mersey, that veteran judge and wreck commissioner who had heard so many

gallant stories simply recounted. "You two young gentlemen," said he, "did great credit to the service you are in."

Although Ferguson had only got away that one message before his power was shut right off and the handle went back upon him, nevertheless it sufficed. Crawford Leslie, a youngster of nineteen on duty at Father Point, got the preliminary warning call, instantly summoned his senior, William Whiteside, who took in Ferguson's solitary S.O.S., and the pair of them got busy with the land telephone, calling up the Government tug, *Lady Evelyn*, at Rimouski. Just then another tug, the *Eureka*, arrived at Father Point to take off a pilot, and was immediately warned to rush off to the *Empress*. Though all this was put through in ten minutes from Ferguson's signal to stand by, and not a moment was lost, the *Empress* had gone to the bottom long before either of

the tugs could arrive on the scene of disaster. The *Eureka* was away two minutes after receiving Whiteside's telephone message, but it took her some forty-five minutes before she could play her part in the rescue of survivors. She made three trips between the wreckage and Rimouski, and landed in all 350 people. The *Lady Evelyn* also bore a part in this work, and many of those who had temporarily sought safety in the *Storstad* were transferred to the Government boats. Out of 1417 passengers and crew who had set sail in the *Empress*, 217 passengers and 248 of the crew were saved.

This destruction of the *Empress of Ireland*, upon a calm night in a sheltered inland water, stands by itself. There is nothing for sheer wantonness to put beside it, until we come to the deliberate destruction of the war. The mistake of those bewildered frightened Norwegians

is inexplicable, save on the hypothesis that we have put forward. Just for a moment that red sidelight of the *Empress* must have shone visibly to the *Storstad*, and then the fog drifting down blotted it out. Had the fog descended a few minutes earlier the flash of red would not have been seen, and the steamers would have passed safely green to green. We have studied no case of which so much was revealed in carefully sifted evidence and so little left to conjecture. Captain Kendall and the First Officer Edward Jones of the *Empress*, who were on the bridge before and at the time of the collision, were both flung from the ship as she went down and picked up by boats. A quartermaster was also saved. So also was the look-out man in the crow's nest aloft, a robustly humorous Irishman named Carroll, who clambered down from his perilous eminence as the ship fell over on her starboard side—

a gymnastic feat impossible to all animals except cats, monkeys, and sailormen. The spot at which the *Storstad* hit the *Empress* was determined in a fashion that no writer of fiction would have dared to invent. A cabin number plate, No. 328, was found upon the shelter deck of the *Storstad*, and must have been struck off as she smashed her way through the decks of the *Empress*. The position of this cabin was exactly known from the steamer's deck plans. It was also proved by the engineers on watch in the after and forward boiler-rooms that the water flooded through the open bunker doors, immediately after the shock of the impact had been felt. The water rose in both stoke-holds as if they were docks with the gates open, driving the firemen up the ladders as fast as they could run. One man who bolted down the engine-room passage just got through as the bulkhead closed upon

his heels. This evidence of the cabin number plate, and the proof from the flow of water that the bulkhead dividing the boiler-rooms had been smashed, made certain, within narrow limits, the depth and width of the wound. The *Storstad*'s bows were crumpled like paper, back to the collision bulkhead. They revealed little, though a mountain of conjecture was piled upon them.

There has rarely been a disaster which permitted so many exact observations to be made. The *Empress*, as she lay at the bottom, was found and her position plotted out. Divers from H.M. cruiser *Essex* then descended and walked along her side. The waste air bubbling from their helmets rose up to the surface and enabled observers there, watching the line of bubbles, to determine by compass-bearing how the wreck lay. A series of these curiously interesting observations

gave the line of the ship as north-east by south-west. Her bows had been thrown a couple of points towards the north by the *Storstad's* powerful thrust.

Everything that could be discovered was discovered, but at the end we are much as we were in the beginning. At sea it is always the unexpected, the incalculable, the unbelievable that happens. Man proposes and the devils of the sea dispose. The regulations for avoiding collisions cover many pages ; we may boil most of them down into those two lines which head this Tale ; a man draws the wrong conclusion from the gleam of a coloured lamp, and they are as naught. Boat regulations, based upon the lessons of the *Titanic* disaster, cover many more pages, and then a rapid irrecoverable list makes most of them as if they had not been. It must always be so. We are men striving against a power so vastly

stronger than ourselves that there can be no hope of a complete victory. We can but do our best, profit in so far as may be by disasters suffered, and prove—as so many did in this dreadful story of the *Empress of Ireland*—that though the sea may again and again defeat the hand and brain of man, it can never break his unconquerable spirit.

VI.

A CONFLICT OF RISK

VI.

A CONFLICT OF RISK.

So far in these Tales we have been concerned with the age-long perils of the sea, with ice, and tempests, and fire, and collisions, and fogs. They were, and always will be, great enough to try to their uttermost the patience and skill and courage of mariners. Yet to them came in the years upon which we must now touch a new peril, one growing more and more urgent as the years passed: the peril of destruction at the hands of man. Capture in war is as old as sea warfare, but destruction, violent, almost instantaneous, destruction, was so new and strange that it took our merchant seamen a good many months to realise

that it had really come. The war risk was a phenomenon so unprecedented that for a while it was difficult to place. It did not supplement the known sea perils so much as cut right across them. It was in direct conflict with them, and often at its highest when the sea risks were at their lowest. In the early days of the war it appeared as an exasperation, a vulgar intrusion, into a maritime scheme of life which was beginning to show some balance between known perils and ascertained precautions. The most powerful emotion aroused by the new war peril in the minds of our merchant officers and men was resentment. It sent them reluctantly to school again to learn a strange temporary job. They were navigators and sea carriers, trained to move cargoes safely and economically, managers and storekeepers of floating hotels ; they were a branch of commerce, not of war.

It was no part of their work in life to be mine bumpers and torpedo dodgers. In the conflict of risk between the sea perils and the war perils, the sea perils, which they had faced all their lives and thoroughly understood, still towered pre-eminent; and so remained until the *Lusitania* was sent to the bottom off the south coast of Ireland. That was a very disturbing shock.

In the Navy we find an exactly opposite state of mind. And naturally, because the Navy is trained for war and the merchant service for peace. With the Navy the war perils, whatever they might be, were from the first pre-eminent, and the sea perils had to take their chance. In his book on 'The Grand Fleet,' Admiral Lord Jellicoe tells of his feelings in the unprotected harbour at Scapa Flow during the early months of the war. At a whisper of the word "Submarine"

this vast superficially omnipotent herd of warships would scurry for the open sea in any weather, without lights—or at best a faint blue glimmer over the stern rail,—churning at immense hazard through the tide rips of the Pentland Firth. Until the anchorage at Scapa had been adequately protected against submarine attack, the Grand Fleet spent most of its time at sea in the brief days and long, dark, stormy nights of that first winter; and so it was all through the war in varying degrees. The sea risks were always subordinated to the war risks, and the war risks themselves to the primary duties of a fighting Navy. On their periodical sweeps through the North Sea, the battleships in divisions would be ordered to zigzag and to pay close regard to mines; but when on the afternoon of 31st May 1916 Admiral Jellicoe was warned by wireless that

Beatty had established contact with the enemy, the Grand Fleet at once abandoned all these precautions, and steamed at full speed straight for the sound of the guns. In the evaluation of risk the Navy never had any doubts about its duty.

For the Merchant Service the mental turning-point was the loss of the *Lusitania* on the afternoon of 7th May 1915. Our interest in this terrible event is, after eleven years, mainly psychological. Although the Germans had officially declared that enemy merchant ships in the war zone about the British Isles would be destroyed on and after 18th February 1915, very few people—outside the Admiralty—took the warning seriously. The notice excited scorn and contempt rather than apprehension. Even on 1st May, when another and more definite threat to Atlantic steamers was

published as an advertisement in the American newspapers by the Imperial German Embassy, the British and American publics remained incredulous. The thing seemed too bad to be true, and most of us declined to believe it. It was at this moment of scornful incredulity on both sides of the Atlantic that the *Lusitania* sailed—at noon on 1st May,—and we cannot doubt that her officers and men and passengers were to some extent affected by the mental atmosphere which surrounded them. They all knew that the German Embassy's threat of that morning was directed at the *Lusitania* herself, yet her deliberate sinking must have seemed too remote from human possibility to be seriously contemplated. The writer, who was then the editor of a leading Scottish newspaper and in receipt of much confidential information, must confess that he was never more

surprised in his life than when he was rung up on 7th May and told that the *Lusitania* had been sunk. He doubted both the will and the power of the German Government to sink her; for he had been informed that the Admiralty were taking no chances, and were themselves directing the movements of the liner by wireless.

This, as later information revealed, was not quite correct. The Admiralty were in wireless communication with the *Lusitania*, giving her warnings of German submarine movements as they were from time to time ascertained, and they had issued a memorandum of advice on 22nd March to homeward-bound Atlantic steamers; but they made no attempt whatever to relieve the captain or owners of the *Lusitania* of their responsibility for the safe navigation of the vessel. It was explained that they were serving

out general advice rather than "imperative orders," and that their warnings were not intended to cramp the initiative of responsible masters. The memorandum of warning and advice of 22nd March, excellent though it was from the point of view of trained naval officers, did clash most violently with the training of merchant ship captains, and placed them in a grave professional dilemma. For it elevated the war risk—the peril of submarines—so much above the sea risk that it invited ship captains to take navigation hazards in crowded waters, which to them must have seemed crazy. The last thing that they could be expected to do—until the submarine peril had made itself more fully manifest to their intelligences—was to set behind them everything that they had learned about careful navigation in British waters.

The memorandum of 22nd March in-

formed captains that vessels passing up the Irish or English Channel should keep a mid-channel course. They should also zigzag at high speed, altering course at short and irregular intervals, say, ten minutes to half an hour. It was explained that the underwater speed of a submarine was low, and that it was exceedingly difficult for her to get into position to deliver an attack unless she could observe and predict the course of the ship attacked. But upon the most important question of all to navigators—the landfall—the memorandum gave small guidance. It was obvious that before fast steamers, like the *Lusitania*, could start to zigzag at high speed along the south coast of Ireland, up the middle of the St George's Channel, and turn into the Irish Sea, they must start from a fixed point, which could only be determined by a carefully observed landfall.

They could not come across three thousand miles of Atlantic Ocean, much of the voyage in overcast weather, by dead reckoning and zigzag towards St George's Channel without fixing their position ; and that meant taking bearings on some known headland on the south coast of Ireland. All that the Admiralty memorandum said about the vital need for accurate observations was that British merchant vessels "when making principal landfalls at night" should not approach nearer than was absolutely necessary for safe navigation. It was frankly admitted by Captain William Turner of the *Lusitania* that he had not taken the mid-channel course with its zigzags, as recommended in the Admiralty memorandum, because he had not got his observed starting-point for these manœuvres. It was at the moment when he was fixing this essential point by bearings on the

Old Head of Kinsale that he was torpedoed and sunk. To his sailor mind—and Lord Mersey's Court of Inquiry held him blameless—safe navigation among the sea perils of narrow waters must not be subordinated to war perils.

There can be no settlement in this conflict of risk; it is all a matter of degree. After the loss of the *Lusitania* the merchant sailors' minds did come to realise that amid war perils so insistent some relaxation of their rigid code of safe marine navigation must be conceded. They were compelled to take sea chances against which their whole beings consciously and subconsciously protested. They had to steam in convoys, without lights or with faint glimmers of light, zigzagging by clock. They had to make landfalls without lighthouses, and penetrate channels from which the buoys had been removed or deliberately mis-

placed. They daily and nightly submitted to the commission of navigational outrages, and suffered a torture of the mind far worse than any suffering of the body. That the regular Navy should perform dazzling feats in blind navigation seemed right and proper—it was the Navy's job,—but that they should be expected to do it, and moreover should succeed in doing it, did not excuse the crime against good seamanship involved in it. We may be sure that when peace came back to the seas, the merchant officers and seamen valued the return to their cherished principles of sound navigation far more than the relief from continuous peril to their lives by mine and torpedo.

The run of the *Lusitania* across the Atlantic on a great circle course was uneventful, and it was not until the early morning of 6th May that special pre-

cautions began to be taken. The life-boats under davits were swung outboard ready for instant launching; the boat accommodation for passengers and crew was ample, given time and opportunity to employ it. All bulkhead doors were closed except those required for working the ship. The usual practice of the homeward-bound Cunard steamers was to pass within some five miles of the Fastnet rock, in the south-west corner of Ireland; but in view of the practical certainty that submarines would be there on watch, Captain Turner decided to give Fastnet a miss, and to set a course about twenty-five miles to the south of it. He therefore never saw the Fastnet, and had not by the morning of 7th May made a landfall. He was navigating by sights and dead reckoning.

He was correct, as he learned later, about the Germans being on watch for

him in the vicinity of the Fastnet rock, but he did not yet know of any specific dispositions. It may be convenient to say here that there were at least three submarines lying in wait for the *Lusitania*: at the Fastnet, farther to the east towards St George's Channel, and off the Old Head of Kinsale. Setting aside all moral considerations, and regarding the German dispositions from the military point of view, it must be allowed that they were well judged. The German commanders knew that the captain of the *Lusitania* must make his landfall and fix his position before he proceeded towards the narrows, and that their opportunity would come as he was fixing it. The Old Head of Kinsale was as likely a point as any other for a fix, so Schwieger in the U 20 chose it for his watch. The *Lusitania* was by so much too fast for him that he was compelled

to get ahead somewhere on her probable course and wait for her passing. This is what he did, and did with great skill.

The *Lusitania* came across the Atlantic at 21 knots, but dropped to 18 knots when approaching Ireland. This seemed a strange thing to do just when danger was greatest and speed most important. It was explained as necessary in order to suit the arrival of the ship at Liverpool to the state of the tides there. It was, the captain judged, better to reduce speed on the way than to be compelled to lie off the port as a helpless target for any submarines which might be cruising in the Irish Sea. As a matter of fact, the difference in speed between 18 and 21 knots did not affect the vessel's fate.

Now we come to the morning of 7th May. In perfect weather, except for a slight fog, speed was reduced to 15 knots, and the vessel kept well away from the

land, which was known to be to port, but had not yet been seen. At eleven o'clock the fog cleared, and the sun shone out brightly on a smooth sea. The captain increased his speed to 18 knots once more, and set his course towards the land in order to get his fix.

The wireless room had begun to be busy. The *Lusitania* carried two operators, who kept a constant watch by day and night, and in order that the aerial might be clear for incoming warnings, no passengers' telegrams were accepted for transmission. We saw in a previous Tale how an operator while engaged upon transmission failed to take in an urgent S.O.S. from a burning ship. Up to this stage in the journey two warnings had come in, both on the evening of 6th May. The admiral at Queenstown signalled that submarines had been reported near Castlehaven, and shortly

afterwards there came an explicit instruction : "Take Liverpool pilot at Bar and avoid headlands. Pass harbours at full speed, steer mid-channel course, submarines at Fastnet." Then at half-past eleven on the morning of the 7th came a third message that submarines were active in the south part of the Irish Channel, and had been last heard of twenty miles south of Coningbeg Lighthouse. All these wireless warnings were received by the operators, and taken immediately to the captain.

Let us look at the situation from his point of view. He knew now that German submarines were behind him at the Fastnet and in front of him off Coningbeg, and he had been directed to avoid headlands and steer a mid-channel course at full speed. But the Admiralty had been careful to explain in their memorandum of warning of 22nd March that

instructions of the kind were not "imperative orders," and did not relieve him of responsibility for the safe navigation of his ship. He was in dangerous waters with a great line of rocky coast to the north of him and the narrow St George's Channel with a nasty turn ahead of him. Fog at any moment might return—he was in the season and waters of frequent fogs—and he had not yet fixed his position. To the mind of an experienced captain of big passenger liners it was inexcusable to proceed farther until his exact position had been determined. When that had been done he could weigh the information received, and do the best that he could in the light of it. So he decided first to get an exact bearing on a known headland, and then to set a course close under the Coningbeg Lighthouse, and as far as possible from the reported cruising ground there of

German submarines. It was not, we may observe, a case of choice between the sea risk and the war risk so much as the elimination of the sea risk—by direct observation—and the acceptance of the war risk. Had Captain Turner literally followed the Admiralty instruction, and gone on without making his landfall, he would have greatly added to his sea risk without necessarily reducing his war risk. He would, it is true, have avoided Schwieger's U 20 then waiting for him at Old Kinsale, but he might have steamed into the jaws of another U-boat off Coningbeg.

Although Brow Head was sighted at 12.10 and Galley Head at 12.40, a long way off, Captain Turner held on, altering course still more towards the land, but not taking a series of bearings. He arrived at a decision to fix his position relative to the Old Head of Kinsale by

the receipt of a fourth message at one o'clock to the effect that submarines, proceeding westwards, had been sighted two hours earlier off Cape Clear near the Fastnet. These submarines were now well astern of him, and moving in the opposite direction, so that danger from them at any rate had passed.

The Old Head of Kinsale was sighted at 1.40 P.M. in beautifully clear weather. It was from ten to fifteen miles distant. The course was then set nearly due east, and orders given to the navigating officers to take a four-point bearing. This observation required that the vessel should be run at a uniform speed on as straight a line as possible for some thirty-five minutes. From this line at four points bearings would be taken, and the result would be an accurate fix. That is what Captain Turner wanted before going any farther on his way. He judged it the

right and seamanlike thing to do, and from this view no pressure of subsequent cross-examination could make him budge an inch. "I had to fix my position," said he again and again.

How far off the Old Head of Kinsale Kapitän-Leutnant Schwieger was lying in his U 20 we do not know. He must have seen the great bulk of the *Lusitania* for an hour or more, and watched her anxiously as she came in towards him. In comparison with her he had no speed, and had she zigzagged to and from the land, he would have been helpless to harm her. When he saw her turn to the east and settle upon a steady course he must have realised exactly what she was about, and chuckled to himself in nasty German fashion; for it must be confessed that she gave him a "sitter" for as many torpedoes as he could let loose at her. Provided that he could

get in fairly close, submerged, he simply could not miss. The *Lusitania* was 785 feet long and drew 34 feet of water. No submarine officer in the war, British or German, ever had a more perfect target.

As we summon up that scene on that bright soft spring afternoon, the horror of eleven years ago gives place to other feelings. The massive conservatism of the English sea captain, intent upon doing in seamanlike fashion the right thing in the right way, compels our admiration. No threat of German submarines could turn him by a fraction from his duty to owners and passengers, as he conceived that duty. He had to provide for the safe navigation of the huge ship entrusted to him. It is true that his four-point bearing at that particular spot cost him the *Lusitania* and twelve hundred lives, but that was due to the unknown mischance of U 20 being there waiting for

him. Had he been informed that she was there he would have avoided Old Kinsale as he had avoided the Fastnet, and taken his bearings somewhere else. But not all the German submarines that ever swum or dived or loosed off torpedoes would have prevented this imperturbable English sailor from fixing his position accurately before going up to Liverpool. He could no more have neglected that duty than he could have failed to stick to his ship until she sank under his feet. And Kapitän-Leutnant Schwieger was as typically German in his methods as Captain Turner was typically English. He had chosen his cruising ground with great judgment, and, when his chance came, he used it ruthlessly and skilfully. We need not suppose that he liked the filthy job, but he did with relentless efficiency what he held to be his duty. He got in very close to the path of the *Lusitania*,

and his torpedoes were fired from within five hundred yards, possibly even nearer. The *Lusitania* had two men on the look-out aloft, two men in the bows, and many officers and quartermasters on the bridge. But disaster fell too rapidly for anything to be done. The submarine was not seen at all. One of the look-out men aloft sighted one of the torpedoes when it was two hundred yards away. "It came," he said, "straight, right, correct for the ship. She could not have got clear had she been going a hundred knots." A look-out man on the forecastle head saw what he thought was a conning tower submerging between four and five hundred yards away, and the tracks of two torpedoes: a thin streak of foam making for the ship at a rapid speed, and another streak parallel with the first and a little behind it. The first of these torpedoes hit the *Lusitania*

between Nos. 2 and 3 funnels, and the second at the base of No. 3 funnel. There was also evidence that a third torpedo, deflected from its course as often happens, passed under the *Lusitania*'s stern. It was not needed. Those two which exploded on her starboard side amidships sank her in less than twenty minutes.

Robert Leith, the senior wireless operator, did what he could to summon assistance, but time was too short for any vessels to arrive before the *Lusitania* had gone. There is a horrible sameness about these war losses of merchant steamers. Many of them were torpedoed and sunk so quickly that not even a distress call could get away. Leith at once sent out the S.O.S. with the position as ten miles south of the Old Head of Kinsale, and then the ship's dynamo failed him. The engines had been put out of action. He went over at once

to the emergency spark set, worked by batteries within the wireless house, and continued to send his distress calls until the ship sank. At the end, as she was going, he jumped off into a boat full of water. There were in this and in other similar cases tales by some passengers of confusion and disorder. But in matters of seamanship and boat handling the opinions of passengers are of little value, and their well-meant efforts to help are often the occasion of disorder. Those serve best who stand aside and wait. Of the ship's company of crew and passengers, 761 were saved and 1198 drowned.

The work of life-saving was done under great difficulties. The steamer listed heavily over on her stricken starboard side, putting the port side boats rapidly out of action. It is at a time like this that individual merit has an opportunity to shine, and to reveal what may be

done by courage and resolution. Leslie Morton, a boy of eighteen, the able seaman who from his look-out station had seen the two torpedoes streaking for the ship, deserves his place in any tale that is told of the *Lusitania*. He did his appointed job at helping passengers into boats, and then swam off as the ship turned over and sank. "The last thing I remember," said he afterwards, "was Captain Turner on the bridge just by the signal halyards." Morton met in the water another seaman named Parry, and the pair of them climbed upon an empty collapsible boat. The two youngsters righted the boat, stripped off the canvas cover, and set up the sides. Then they set to work to pick people out of the water and haul them into their cranky craft until she was quite full. Their first cargo of survivors numbered over fifty. Five miles off was a fishing smack

making for the scene. Off went Morton and Parry with their load to the smack, passed them all on board, and "went away for some more." They came up against a sinking lifeboat in which there were some twenty or thirty people, and saved them all. Finally, they were themselves taken off their coracle of wood and canvas by a minesweeper. In all the stories of the sea we know nothing more worthy of remembrance than that self-imposed boat work of Morton and Parry. And young Morton was so reluctant to tell of his part in it that the details had to be extracted from him as with a judicial corkscrew.

We have examined in this Tale the conflict of risk in the mind of Captain Turner in some detail, because Mr Winston Churchill, First Lord of the Admiralty at the time of the *Lusitania's* loss, summed up the case against him with harsh brevity

in his 'World Crisis,' Vol. II. After quoting the telegrams of warning received by Captain Turner, Mr Churchill wrote: "In spite of these warnings and instructions, for which the Admiralty Trade Division deserve credit, the *Lusitania* was proceeding along the usual trade-route without zigzagging at little more than three-quarter speed, when . . ." she was torpedoed. We prefer the judicial verdict of Lord Mersey, that most experienced of all Wreck Commissioners, before whom the evidence in the *Lusitania* inquiry was heard: "The conclusion at which I have arrived," said he, "is that blame ought not to be imputed to the captain. The advice given to him, although meant for his most serious and careful consideration, was not intended to deprive him of the right to exercise his skilled judgment in the difficult questions that might arise from time to time

in the navigation of his ship. His omission to follow the advice in all respects cannot fairly be attributed either to negligence or incompetence. He exercised his judgment for the best. It was the judgment of a skilled and experienced man ; and although others might have acted differently, and perhaps more successfully, he ought not, in my opinion, to be blamed."

The *Lusitania* was the first unarmed passenger steamer to be sunk by a submerged submarine without any warning whatever. The case introduced the new doctrine—now reluctantly accepted—that when nations are at war all members of those nations, armed and unarmed, are at war. Until then it was assumed that, in a war against maritime communications, non-combatants would at least be given time to escape in boats before their sea homes were sent to the bottom. After the loss of the *Lusitania*

that assumption was shown to be unfounded. The Germans did not at one moment of time and at one step cross the line which divided the old wars between armies and navies and the new wars *à outrance* between nations and nations. The most important case of destruction at sea before the *Lusitania* was that of the *Falaba*, an Elder Dempster boat outward-bound for West Africa, which was sunk after warning on the morning of 28th March 1915. It is true that the warning was too brief to be of much avail—a mere ten minutes,—yet before that the *Falaba* was pursued by a submarine on the surface for some twenty minutes, and distress calls were successfully got away before the disaster occurred. The vessel sank in eight minutes, and as the torpedo which destroyed her exploded under the Marconi house, it is probable that no distress calls could

have been made had the *Falaba* been attacked, as was the *Lusitania*, without warning. Afterwards, as the war against sea carriage and sea transport developed, we were compelled to shed all illusions. And if it should happen that we become again involved in a maritime war with a naval power, there will be no illusions from the beginning. By sea, as by land, there will be no distinction drawn between the hazards of combatants and non-combatants. It may indeed happen—it is at any rate a common Service view—that armies and navies, with their capacity for defence, will be safe “funk holes” in comparison with exposed industrial cities and helpless merchant steamers.

VII.

GOLD FROM SEA-WATER

VII.

GOLD FROM SEA-WATER.

THERE is an unforgettable fascination about a gold bar. In his youthful days in the city of London the present writer loved to peer into the courtyard of the Bank of England and watch gold being packed for export by a placidly indifferent workman. The dull yellow "bars" lay about naked on the stones, in shape very like Roman bricks, to all appearance unprotected save by their own massive weight. The workman would neatly fit five of them into a wooden case, lap it about with hoop iron, drive in a few nails, and pass on to the next lot. Each bar that he handled weighed 400 troy ounces (over 33 pounds), and was worth

some seventeen hundred pounds sterling. Each case of the value of £8500 had a weight of 166 pounds. I have watched a man for hours putting up gold bars as indifferently as he would potatoes, and presently assisting an equally indifferent railway vanman to hoist those boxes of fabulous treasure into his unguarded van. Maybe hidden somewhere there was an armed guard, or perhaps the prohibitive weight of the gold was its own best protection.

In the strict sense, perhaps, this Tale has little in it of distress or of alarm. For that which began in distress, in the sinking of a great ship and a loss of many lives, ended after long years of high endeavour in a triumph of the spirit of man over the powers of the sea. It is a Tale far too good to be sacrificed to any pedantic regard for a general title. Indeed, we present this story of Commander

Damant's salvage of the *Laurentic*'s gold bars off Lough Swilly as a companion picture, in a modern frame, to that other story, now nearly a century old, of Captain Dickinson's recovery of the *Thetis*'s dollars at Cape Frio, retold in our 'Dead Men's Tales.' As a study in contrasts and in likenesses, these two stories have many features of interest. Captain Dickinson of the old sailing Navy worked "on private account" to make what he could for himself and his men out of salvage awards; Commander (now Captain) Damant was working for his country under orders at his professional naval duties. Dickinson had to invent and construct everything for himself as he went along—diving-bells, a vast derrick, and searching gear; Damant had skilled divers from the *Excellent*, and all the salvage plant, explosives, pumps, and mechanical power that the Admiralty could

spare for the service. Yet in both cases, though so far apart in details, the enemy fought was the same, and the triumph won was due to the same human qualities. In the twentieth century, as in the early nineteenth, the high spirit of man wrestled with the blind powers of the sea and won through by sheer grit and brains. In these two great jobs of work, separated by three generations, we perceive all through the superb qualities of the British sailor—his cheerful persistence, his indomitable courage, and his unfailing loyalty to his leaders. “It was the men who did it all,” say Dickinson and Damant; “it was those wonderful creatures who pulled us through.” Leadership is proved by its fruits. Men do not labour cheerfully, do not prove themselves to be wonderful creatures, unless they are privileged to serve leaders who inspire and sustain them. Whether we read of

Dickinson's sailors tipped out of a diving-bell, coming up gasping and half dead, and then eagerly going down again, or whether we read of Damant's divers grubbing with bleeding fingers for gold bars hidden in the débris beneath the *Laurentic*'s bottom, we are reading the same story of simple human devotion to the leader who is worthy of it.

In January 1917 the White Star liner *Laurentic* was sunk by enemy mines off Lough Swilly while on a voyage from Liverpool to Halifax, Nova Scotia. She went down in 120 feet of water, and three hundred lives were lost. With this big ship of 15,000 tons went forty-five tons of gold bars, valued at over five millions sterling, which were being shipped to Canada at a time of great financial distress. This country was making huge purchases of war material, the United States had not yet "come in,"

and our national credit in America needed the solid buttresses of gold and dollar securities if the war was to be carried on. The sunken gold was wanted badly and at once, so the Lords of the Admiralty ordered Commander G. C. C. Damant, R.N., to go to Lough Swilly and get it. The job at the beginning did not look one of great difficulty for an officer who had made a special study of diving operations and for divers trained in the Admiralty service. The position of the ship was known, and the position of the gold in the ship. Provided that the *Laurentic* would hold together for a few months, Damant and his divers should be able to get the gold out of her.

We will deal presently with the difficulties, mechanical and physiological, of diving in deep water and of working when there. For the moment we are concerned with the immediate problem

of getting quickly at those 3200 bars of yellow gold, neatly packed in their wooden boxes, and locked up in the second-class baggage-room in the sunken *Laurentic*.

Commander Damant had at his disposal a mooring steamer, the *Volunteer*, five divers from the *Excellent*, and pumping and hoisting gear which, if not in all respects what he would have chosen, could be made adequate to the immediate purpose. He had also a large model of the *Megantic*, a sister ship of the *Laurentic*, and builders' plans, so that he knew exactly where to look for that second-class baggage-room of unromantic name and glittering contents. By the end of February he had the *Volunteer*, his plant, and his men at Lough Swilly, with headquarters at Buncrana. After some delay from bad weather the position of the *Laurentic* was fixed in a spot fully exposed to the north and west and not too well

sheltered from the south. The *Volunteer* was moored above at all four corners, and the first descent was made. Modern deep-water diving is done from a ship, not from boats, and steam air-compressors are used in place of the old hand-pumps in order to maintain a sufficient supply of air to the divers. The ship was found to be lying on her port bilge at an angle of sixty degrees from the vertical, the entry port on the starboard side leading to the second-class baggage-room could be got at, and prospects looked bright. The plan was to blow in the entry port, clear a way to the baggage-room, force the door, and haul out the cases of gold. But the experiences of the first divers to go down suggested that all was not going to be plain sailing.

The trouble—and it was the primary cause of all Damant's woes for seven years—was the motion of the sea in

the depths. A short breaking sea affects only the surface, but the long slow Atlantic swell transmits horizontal surges along the sea floor at the *Laurentic's* depth of 120 feet, so that the divers had to cling to the sloping side of the wreck lest they be swept away. All loose tackle lashed like whips about them with the scend of the sea above.

As soon as the exact position of the entry port had been found, the moorings of the *Volunteer* were taken up and relaid, so that the vessel might be placed directly above the men at work, and keep their pipes and lines clear of fouling. Then with a charge of gun-cotton the steel doors were blown in and neatly jammed into the tunnel behind. The next step was to haul these doors out and to clear a way through a mass of casks and cases which littered up the passage beyond. All went well, though the diving vessel

was pitching in the swell above, the hoists jerking up and down, and the divers being swung to and fro by the deep water surges. Finally, success seemed to be upon the point of achievement when on 14th March the steel door of the strong-room was reached and opened with a hammer and chisel, and the first box of five gold bars lifted out and sent to the surface. A box of gold is a small object measuring no more than a foot square by six inches deep, but its weight of 166 pounds makes it clumsy and laborious to carry through narrow ways out of the bowels of a foundered ship. Yet there was on the 14th that one box as an earnest of others to follow, and next day there were three more boxes. It looked, as Damant said, as if a few weeks would see a job done which actually spread itself over seven weary years. All depended on the weather. Damant

was to find, as so many have found before, that the sea does not willingly give up its prey.

In his diary under 15th March he wrote, "Started to blow," and for many days thereafter the record is one of continuous gales from the north, with the wind blowing "like the devil." Down below the swell, as they were soon to find out, was working on the *Laurentic*'s hull in a manner inconceivable to those who have had no experience of deep-water salvage. The water moving irresistibly to and fro seized upon projecting features, such as superstructures and shelter decks, worked them backwards and forwards, and nipped them off as one breaks a bit of tin between one's fingers. Also the pressure of the water squeezed in the compartments that had not been opened to the sea when the vessel sank, and decks became piled upon decks. All this

havoc was discovered as soon as the weather moderated and the *Volunteer* could get back to her moorings, and it was a havoc which postponed indefinitely all hope of getting at the gold bars in bulk. For now with the collapse of the decks—the whole ship was found to have been shut up like a concertina—the heavy gold had made its way down to the lowest depths near the sea floor. The lamentable consequences of that series of gales and the collapse of the *Laurentic's* hull were realised when, after great toil and amid constant perils, the divers had again blown their way into the crushed strong-room and found it empty. The room itself was 40 ft. lower down than at the earlier entry. The gold had all escaped, fallen away to port, become mixed up and overlaid with deck-frames and plates, and must now be searched for bit by bit, as Dickinson had to search

for the dollars of the *Thetis* when she had, in similar fashion, been broken up by the seas. From a rapid operation the work of salvage had become one of immense toil and of indefinite duration.

The one bright spot was the disappearance of immediate urgency by the entry in April of the United States into the war. The buried gold which had so sorely been needed to finance our American purchases was no longer of vital necessity, and Damant, in the long years that lay ahead, could have for his operations all the time that he required. One may, however, doubt whether the prospect of unlimited days of nibbling at that clotted mass of jagged steel looked sweet in contemplation.

The problem was no longer one of removing gold boxes from the strong-room of a ship, for the once proud *Laurientic* had ceased to be a ship. She was

just a litter of crushed and split and tangled metal splayed about on the sea floor, and the gold bars escaping from their splintered wooden boxes were no longer in one closed sealed room, but in three thousand pockets wherever they had fallen or crept. At every gale the Atlantic swell churned and broke the tangled mass of steel more and more, and redistributed the gold hidden within it and beneath it. And seeing that he could no longer remove the gold in bulk from the wreck, Damant had to contemplate the removal of the wreck from the gold, by cutting right down through it, by clearing a way to the bottom of it, and then picking up the gold bar by bar. As time went on those bars which were not early discovered would bury themselves more and more deeply until it might become necessary to follow them into the sea floor itself under where the

wreck had been. That was the tremendous task, carried out primarily by man-power at a depth of 120 feet, with the watchful care and slow deliberation necessitated by deep-water diving—if his gallant men were not to break up and die on their leader's hands,—Damant had not only to contemplate, but to plan and to carry out. And that is, in brief, exactly what he did. Since he could not remove the gold from the wreck, he removed the wreck from the gold.

As himself a skilled diver and master of divers, Commander Damant had outstanding qualifications for the conduct of under-sea work. Twelve years before he had been sent to Lough Swilly to fetch up the *Laurentic*'s gold, Lieutenant Damant, as he was then, had, as a naval specialist, been lent to the Admiralty Committee on Deep-Water Diving for “experimental work.” This meant that

not only would Damant carry out experiments, but that he would submit his "vile body" to the experiments of others so that the dangers to life and health of deep-water operations might in his person be discovered and eliminated. And so he did, submitting with Mr Catto, Chief Instructor in diving at Whale Island (*Excellent*), to experiments at depths up to 35 fathoms, or 210 feet, and enabling the Committee to arrive at their invaluable conclusions. It is in accordance with the rules of this Admiralty Committee of 1905, of which Dr J. S. Haldane was the medical inspirer, that deep-water diving is carried out to-day. The two physiological dangers incurred by divers are carbonic acid gas poisoning due to insufficient volume of pumped-down air, and nitrogen bubbles in the blood caused by prolonged exposure to high air-pressure. The first is prevented by increasing

the supply of air in proportion to the depth by means of steam air-compressors of sufficient capacity. Nitrogen bubbles are more difficult to deal with, and unless eliminated will cause paralysis and death. The worst of the evil effects are got rid of by bringing a diver up in stages, with intervals for rest. At the depth of the *Laurentic* the men worked in 30-minute shifts, and took 33 minutes to ascend, the longest rest of a quarter of an hour being at ten feet from the surface. Even then the divers frequently suffered from what are called "bends," severe pains in the joints, and were then put into a recompression chamber in the diving vessel, and gradually made accustomed to normal air-pressure. During the work on the *Laurentic* Damant often went down himself, knew exactly what his men had to do and how they suffered in doing it, and so completely won their

affection and confidence that recovering divers would insist on coming out of the recompression chamber, and enduring the return of those horrible "bends," to make room for him rather than that their skipper should linger in pain outside.

So the long work of cutting down through the wreck began. The tangled structure had to be removed beam by beam and plate by plate by men whose vision under water did not extend beyond three or four yards, and whose every movement had to be communicated by telephone to those above. The masses of metal were cut by explosives, and when detached were hoisted to the surface for ultimate dumping at a distance. Cutting metal beams by explosives is an art in itself, and Damant explains how it was done. A charge on one side only bends a beam; two charges directly opposite one another produce no effect;

but if two opposing charges are stepped a little so as to give a sheering stress upon explosion, the beam is neatly severed every time. Day after day through April and May this picking to pieces of the wreck went on until a crater had been driven nearly to the bottom, and then on 22nd May the divers came upon a pocket of gold bars separated from their cases. They secured twenty-two that day, worth about £37,000, more than enough to pay the whole working costs of the salvage party for a season! This was most encouraging; it showed that the searchers were on the right road. On many days in June gold was found in smaller quantities, and then on 20th June came a bumper day, which Damant permits himself in his diary to underline heavily and describe as "splendid." The divers struck a rich lode, and four of them in successive shifts found and sent up no

less than 224 bars (value £380,000). One man to his own bucket scored 109, while another man raised no more than three. This shows how much luck there was about the game. By a very wise regulation the men engaged on the under-water work, and those above in the diving vessel, shared in the bonuses on gold recovered on a fixed scale unaffected by individual scores in gold bars. The whole job was team work and not personal pot-hunting.

The work on the wreck during that first season was not continuous. Frequently it was interrupted by weather, and for many days Damant with his *Volunteer* and divers was called off for other salvage jobs. Altogether ninety days were spent grubbing in the *Laurentic's* bowels, and on thirty-one days gold was found. The total haul of the season up to 31st August was four boxes

(five bars each) and 522 bars—542 bars valued at about £920,000. Towards the end of it all, on 28th August, we find this delightfully human entry in Damant's diary : "Found two wires ashore. Frightened ! Bad—worse—dead ? No—a daughter, 3 A.M. All well."

The effect of explosives under water was curious and rather erratic. The area to the North of Ireland in which the *Volunteer* was working was one favoured by German mine-layers. Now and then our sweepers would explode a mine. Once this happened at two miles distance from the *Laurentic*, and a diver at work received a most violent and dangerous shock. After that work was suspended when mine-sweeping was in progress within five miles. While the divers were blasting their way into the wreck the decks would be covered with dead fish and attract the eager attention of shoals of dog-fish.

Charges would be exploded in the midst of these dog-fish, yet they never seemed to be hurt. "On the contrary," says Damant, "they could be seen rising to the surface almost in the foam of an explosion, and tearing at the bodies of the freshly killed teleosteans." He came to the general conclusion that fish do not seem to be killed outside a radius of two or three hundred yards, and he noted that those without swim-bladders did not seem to be affected at all.

The year 1918 was blank in so far as gold-hunting had claims upon the Admiralty's attention. There were other and more urgent things to do, so that eighteen months elapsed before Damant was ordered back to Lough Swilly to dig once more into the carcass of the *Laurentic*. It was now 1919, and he was able to secure the assistance of the fully equipped salvage steamer *Racer*, a

type of vessel which, like the famous *Ranger* of the Liverpool Salvage Association, is a self-contained travelling workshop. There were for the future to be no more troubles with defective air-compressors—that in the *Volunteer* was constantly going wrong,—and the recompression accommodation for divers suffering from “bends” approached the luxurious. A diver could lie inside a great steel cylinder undergoing compression and have tea passed in to him through an airlock.

In general appearance there had been few changes at the wreck, though for eighteen months the Atlantic swells had had their will upon her. The job of burrowing into the vessel and clearing the old crater was resumed, at first with fairly gratifying results. But then the pockets petered out, and it became clear that the greater quantity of the bars had been widely distributed. The rich

lode of 1917 was soon exhausted in 1919 (it yielded 315 further bars, about £535,000), and the hunt had to begin again on a wider and more laborious scale. Hitherto Damant had been intent upon driving a shaft down through the wreck ; now he had to remove the wreck itself piecemeal. It was not until gold ceased to come up from the initial boring that he was compelled to face the larger, and for a long time, less fruitful operation.

The winter gales of 1919-20 helped by breaking up the remaining superstructures and depositing plates and decks upon Damant's crater. These were peeled off, and taken to the surface, and then it was found that a new and formidable obstacle had obtruded itself. From above and around broken fragments of chairs, planking, baths, tiles, and so on had been swept into the crater, and from below sand and stones had pushed upwards

from the sea bottom and become caked into a solid mass "reinforced" with cot frames and spring mattresses.

The years 1920 and 1921 were almost blank as regards gold, though they were chock-full of toil and disappointment. As plates and solid lumps of metal were blasted away the sand would well up, inexhaustible and resistless, and fill the space again. Large centrifugal pumps and dredging grabs were tried, but failed for lack of space within which to work, and Damant was driven back upon slow and terribly painful hand work. In fine weather the divers gained; in bad weather the sand. "Very fortunately," he writes, "a few odd bars of gold turned up and kept hope alive when failure seemed to be threatening." The fruit of 1920 was 7 bars, and of 1921 43 bars—50 bars, or £85,000 in two toilsome years. Not the least of Damant's anxieties at

the end of those two unfruitful years was to convince My Lords at the Admiralty that the gold was there in the wreck to be found, and that it could be found and salved by removing enough of the wreck. Fortunately even in his two bad years he had recovered more than enough to repay the costs of the salvage work, which were some £20,000 for a season.

By the end of 1921 so much of the wreck's structure had been blown away and brought to the surface that the port side of the shaft tunnel and the tank tops could be seen among the mass of débris. This showed that the salvors had burrowed right through the ship from top to bottom as she lay and reduced the steel scrap-heap to some semblance of order. The two seasons of patient labour were gaily rewarded in the spring of 1922, when operations were resumed.

The first diver to go down actually saw a number of bars sticking up out of the sand in a spot where the sea had kindly washed them clear. Nineteen bars were seized the first day. As the men expressed it, "They came up like lambs." Damant was now right down on the skin of the ship, and set to work to clear as large an area as he could. This season was the turning-point, for it not only proved rich in gold, but revealed the true method of dealing with accumulated and accumulating débris. The contrivances of modern engineering, centrifugal pumps and grabs, had failed ; they got out less than a hundredth part of rubbish dug. Hand power must, after all, do the job if it were to be done. The divers were assisted by hosepipes from the *Racer*, which projected water at 70 lb. pressure. With the nozzle in one hand driving away sand and stones, a man would

groped with the other hand for the instantaneously recognisable "feel" of soft yellow gold. Many bars had lost their shape, they had been moulded like putty, they had pebbles and bits of steel driven into them, yet the magic touch of them revealed their identity instantly to the sensitive divers. After a spell of work for many days together, the nails of the men would be worn away to a quarter-inch strip, their finger-ends would be palpitating pulps of raw flesh, yet they went on. Leather gloves were offered and refused. Gloves, the divers declared, spoilt their sense of touch; they could not react to the odd thrill of soft gold, as distinct from hard metal or stones, unless their hands were bare. So they went on, though their nails were worn down far below the quick, and their wounds were tortured by day and night with the salt of the sea-water. The bars

usually lay 18 inches or two feet deep in the sand, and the divers could just reach them with their tender finger-tips.

Where mechanical means of clearing a way to the treasure had failed man-power succeeded. "The corner was turned," writes Damant, describing his struggle with encroaching sand, "as I am convinced by the simple device of weighing and recording the amount of sand dug out by each diver in his spell below. Here was a new competition, and one with no luck in it. For 10 or 20 working days the weights of sand per man steadily increased as brains came to the aid of muscle, as new dodges for saving 20 seconds here and getting an extra 3 or 4 lb. there with the aid of some queer-shaped scoop made by the blacksmiths, came into action. . . . A standard, and a high one, had been set up which no diver's pride would allow him

to fall below ; and till the excavations reached a depth point 10 feet below the level of the surrounding sea-bed the sand trouble was overcome.”

At the end of the season of 1922 Damant was able to report that 895 bars (about 1½ millions sterling) had been recovered in 77 diving days out of a season of 198 days, and that there had again been no accidents to life or limb. Indeed, the freedom from serious accidents from first to last in the many perils of the work shows the degree of care which was exercised throughout. Once in the early days a diver became imprisoned beneath a large plate owing to the breaking of a wire hoisting cable. He called for air and more air, for he felt that his spine was being broken, and he got some relief as the extra pressure swelled out his diving dress. But though the diver might call for more air, Damant had to balance

the risks. Too much air would certainly burst the dress and drown the diver. So the supply was actually throttled and the man's spine risked, while a rescuing diver rigged a new wire to the imprisoning plate. In nine minutes the first diver was released "unruffled and none the worse." This instance of shrewd quick judgment makes one understand the unlimited faith of the divers in their commander.

The long years of labour culminated in the season of 1923 with the recovery of 1255 bars of gold of a value of over two millions sterling. This brought up the total number of bars salved and stowed in the Bank to the credit of the Treasury to 3057 out of the original consignment in the *Laurentic* of 3211 bars. Over 95 per cent had been recovered; less than 5 per cent remained. Something like three-quarters

of the huge vessel had been picked to pieces and removed, and, except for the intrusive sand, her bottom plates were almost clear. It was a great work, and one is glad for Damant's sake, and for the sake of his dauntless divers who had fought the good fight with him—fifteen of them,—that the job was not left uncompleted. As now tried and proved artists in salvage, they craved permission to put in those final touches which make immortal a perfected picture.

So with light hearts they set forth in the spring of 1924 for the last lap or varnishing day, or whatever one may elect to call it. The great carpet of plate upon which and under which they were now to search for those last 154 bars was not continuous. There were rents and port-holes in it, and under the action of the sea it crept so that gold

which had fallen through apertures might be hidden beneath unpierced plating. The weather proved excellent. The sea knew that it was beaten, as it always does when man stands up to it and fights it to the uttermost. There is a strain of bully in the soul of the sea. The last layer of the wreck was cut away and hoisted off, and then some 2000 square feet of the sea floor itself was uncovered and searched. Divers working with the water-hoses and bleeding fingers could not now be denied, and they were rewarded by tracking down 129 more bars, leaving just 25 unaccounted for. That was in September 1924, when the operations were concluded, and one feels that there was a touch of the higher artistry in leaving that little something in the clutches of poor Father Neptune. He had been badly beaten, and knew it. It was as if Damant flung him a consolatory *pour boire* of

£42,500 after dragging £5,416,000 out of his grip.

"And how," I asked of Damant, "did you store all these lumps and masses of treasure as the work went on, and how transfer them safely to the Bank of England?" He replied that in the early days the bars used to be stowed under the Master's bunk in the *Volunteer*, probably the safest place in such a ship. When things got bad in Ireland the Admiralty provided the salvors with a destroyer as escort, and any gold would be transferred and locked up in her magazines after each day's work. "When a quarter of a million or so had accumulated," he went on in the airy style of a wholesale collector of bullion, "arrangements would be made for the destroyer to run over to a convenient port (*e.g.*, Stranraer), where a 'representative of the Bank of England'—total stranger,

bowler hat, plausible manner—would appear with lorries and take it off to the train.” It all sounds delightfully casual, yet the total stranger in the bowler hat and the plausible manner always was what he represented himself to be, the lawful guardian of the Bank of England’s gold. Had this Tale been fiction he would, for once at least, have been a superlative crook out of a cinema film.

The total cost of the salvage work spread over seven seasons was less than $2\frac{1}{2}$ per cent of the amount recovered, and was conducted all through by Commander Damant to the account of the Admiralty. The salvage party, in addition to their naval pay, received at the end a bonus of one-eighth per cent on the gold salved. Contrast this modern method of doing things with Captain Dickinson’s salvage of the treasure in the *Thetis*

on private account, and his subsequent legal fights with his own admiral and with underwriters at Lloyd's. Ours is a more dignified and at the same time a more economical way. Had this operation been carried out on a salvage contract "no cure no pay," it would have cost the taxpayer at least ten times as much as it did.

And of the men, the true heroes of this little epic, listen to Captain Damant, their leader. In March 1926, when kindly supplying me with all the notes and papers upon which I have freely drawn in this Tale, he wrote :—

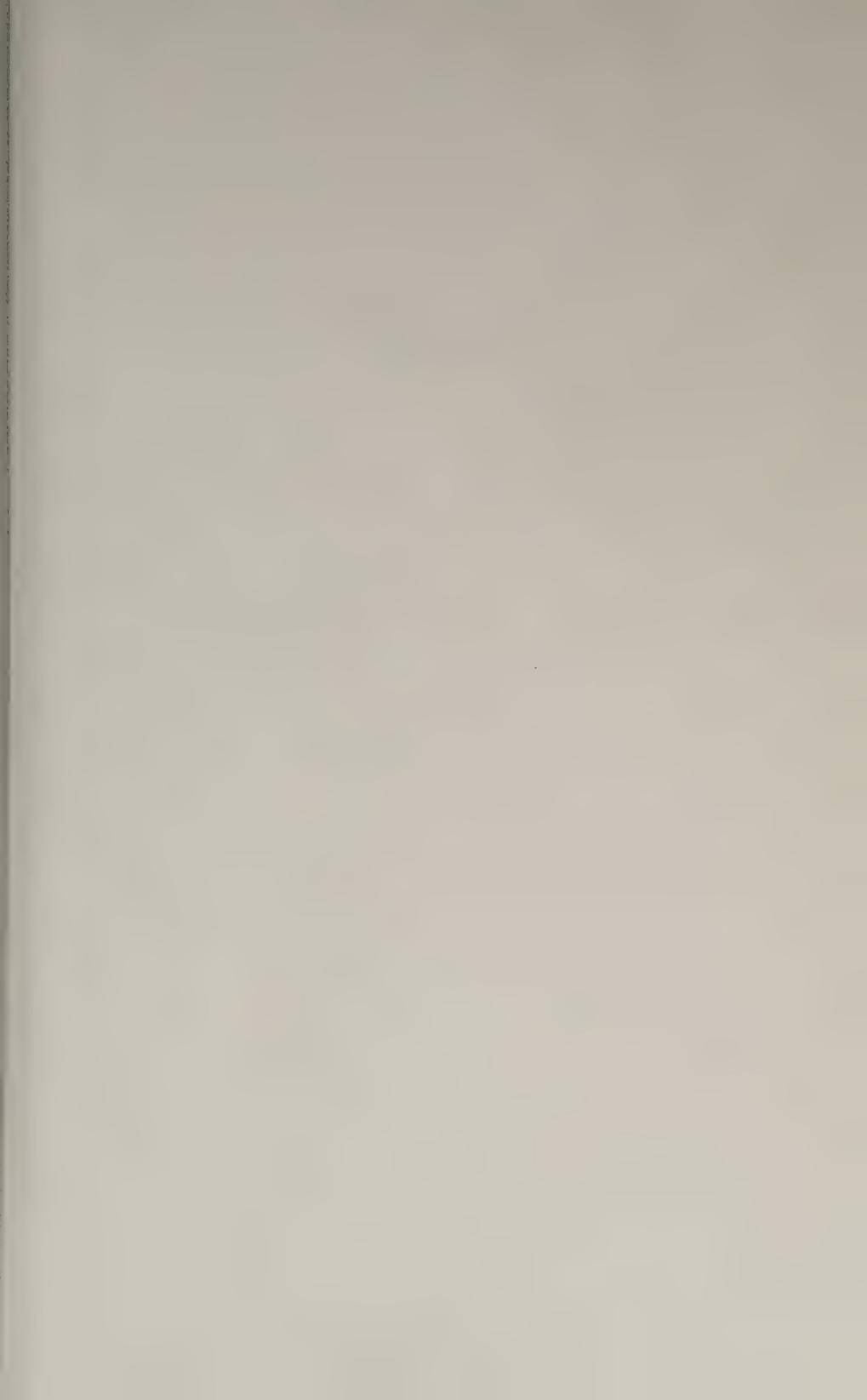
"I have often wondered why my divers all behaved like angels all the time. Most men do when there is a life to be saved, something that appeals to all mankind educated or not. Possibly ditto with the real red gold. Every deed could be evaluated. No one was en-

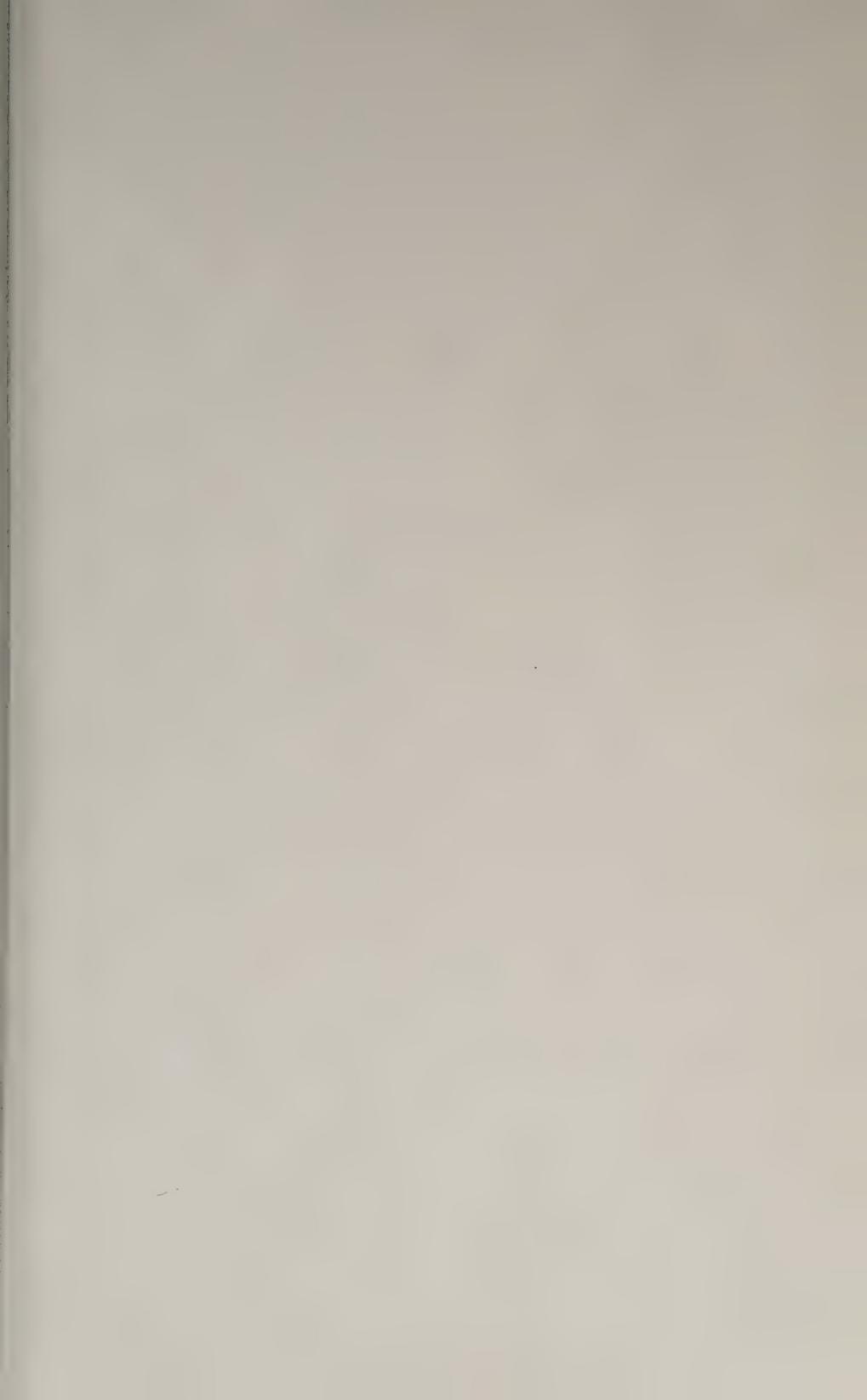
riched by any one else's labour. A common religion, absolute unity in aim, reality, danger and boldness, to give pleasure. The only sad days were the ones when we could not get out to the wreck and had to mope in harbour.

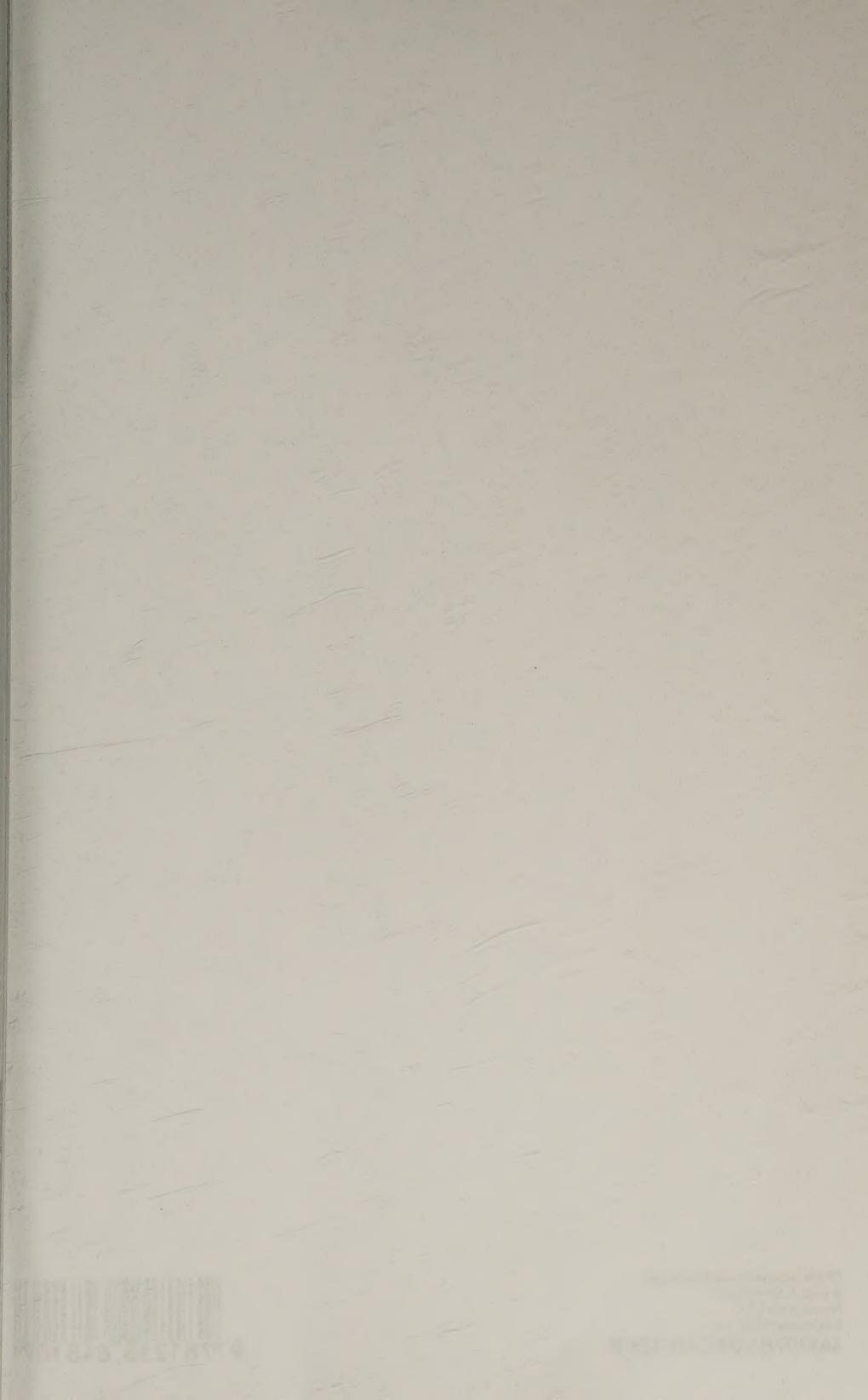
"No question of award apart from actual service pay ever arose. I mean not one of the divers ever suggested that any bonus, or more bonus and pay, should be given them, and, of course, I never raised or commented on the question with the authorities. They did, voluntarily and spontaneously, award something just under £7000, which was divided among about 70 officers and men, who were all very well satisfied and grateful."

In my rendering of this Tale I have tried to hint, not obscurely, why Damant's divers all behaved like angels all the time.

Printed in Great Britain by
WILLIAM BLACKWOOD & SONS LTD.







CPSIA information can be obtained
at www.ICGtesting.com

Printed in the USA

BVOW06s0758201116

468397BV00026B/428/P



A standard linear barcode is located in the bottom right corner of the page. It consists of vertical black lines of varying widths on a white background.

9 781258 648107



GOODWILL

Books

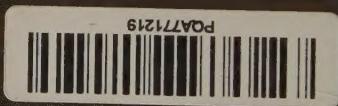
\$3.99

As-Is

Red

52

04/21



Literary
Licensing®

www.LiteraryLicensing.com

ISBN 9781258648107



9 781258 648107

S0-BDK-281

Cover design: GBR Creations.com